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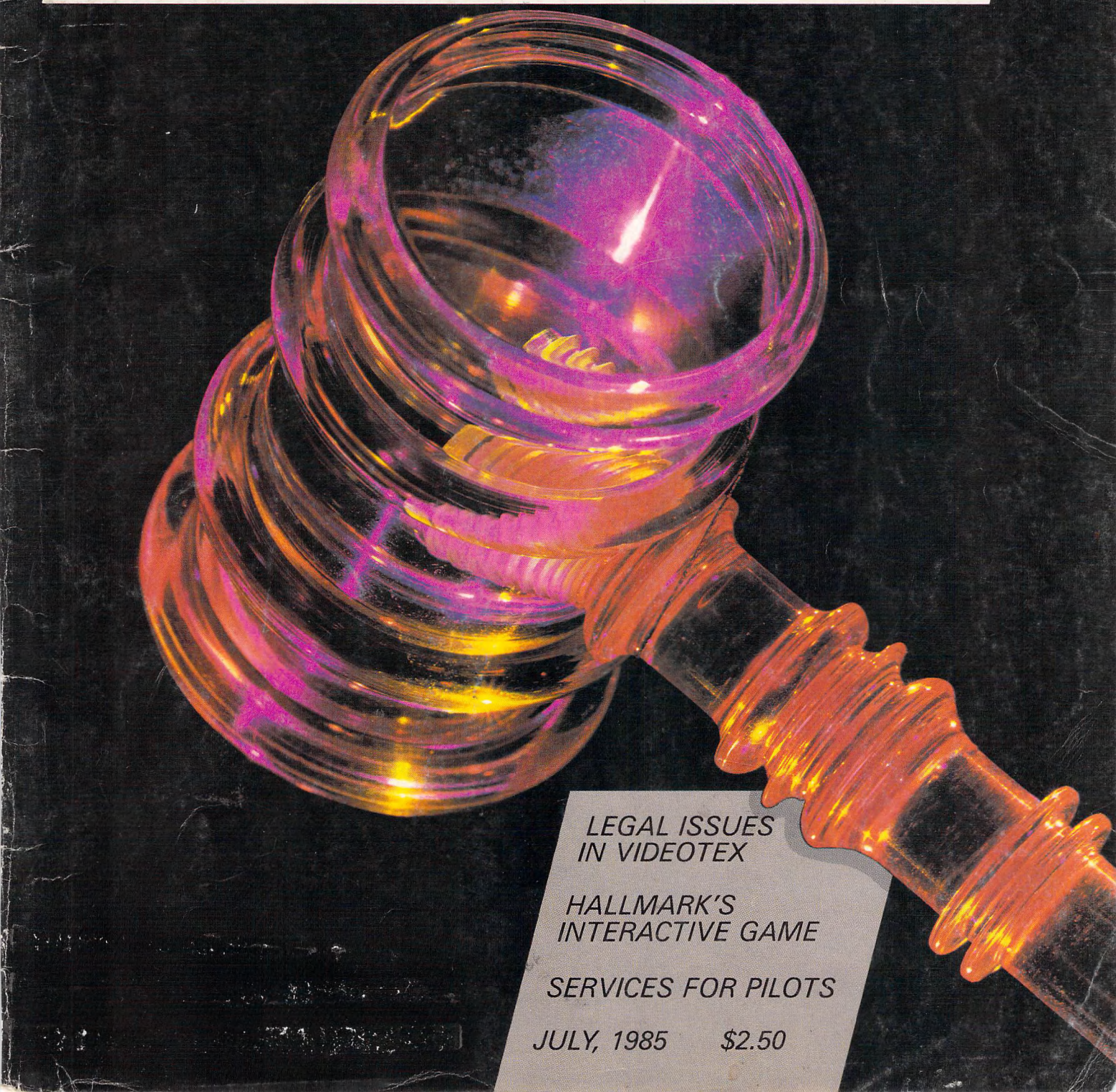

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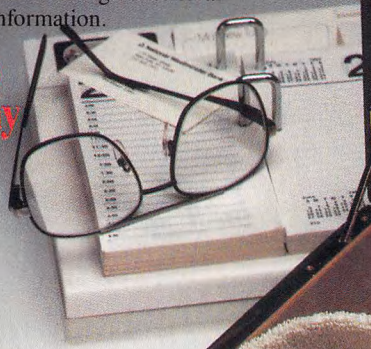

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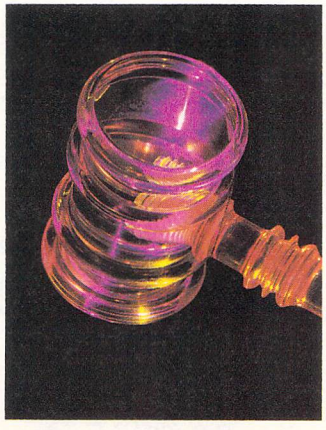

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DEAR READER

Online Today™, **July 1985**
Volume 4 Number 7

Published by CompuServe Incorporated,
an H&R Block Company

Editorial and Advertising Offices
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Online Today is published monthly for $30 per year by CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220. Second-class postage pending at Columbus, OH, and at additional mailing offices.

POSTMASTER: Send address changes to *Online Today*, P.O. Box 20212, Columbus, OH 43220.

BPA Membership (Selected Market Audit Division) applied for October 1984.

Unauthorized access plagues two-thirds of U.S. videotex companies, resulting in losses ranging from thousands to more than a million dollars per year, according to a recent survey of members of the Videotex Industry Association and the Information Industry Association.

Despite the magnitude of the problem, a federal computer crime law has not yet replaced antiquated legislation designed to govern other media. The VIA recently redrafted its bill, one of two being considered by the Council of State Governors as a guide for the many proposals now before state legislatures. In addition, a half dozen Congressional committees are considering federal computer crime legislation.

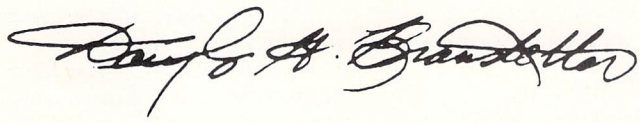
While waiting for the enactment of federal and state laws, videotex companies are handling unauthorized access on a case-by-case basis. Cases within the last year have yielded more questions than answers. Is an electronic bulletin board operator responsible for the content of messages that others post on his board? Could the government subpoena records of private communications between videotex subscribers if the evidence was needed for a criminal investigation? Another legal dilemna also involves videotex transmissions as property. Do the laws of copyright that apply to print-on-paper also apply to electrons traveling through space?

Contributing Editor Byron Scott addresses these legal issues in this month's cover article, beginning on page 12. In a sidebar Scott reports the results of a recent Videotex Industry Association survey about unauthorized access.

* * *

With this issue, *Online Today* takes on a new look with graphics redesigned from top to bottom. The new design is part of an overall program to enhance readability and integrate new elements into the magazine, including a business and business applications section beginning next month, increased CompuServe usage guides and tips, and more. As always, we welcome your comments and suggestions.

Please remember that the printed version of *Online Today* is only half of your magazine. For constantly updated computer industry news, CompuServe news and reviews, turn the electronic page to *Online Today Electronic Edition*. Simply enter GO OLT from any prompt in the CompuServe Information Service. Used together, the print and electronic version of *Online Today* can provide you with valuable information that will make your online time with CompuServe more efficient and rewarding, whether it's for business or pleasure.

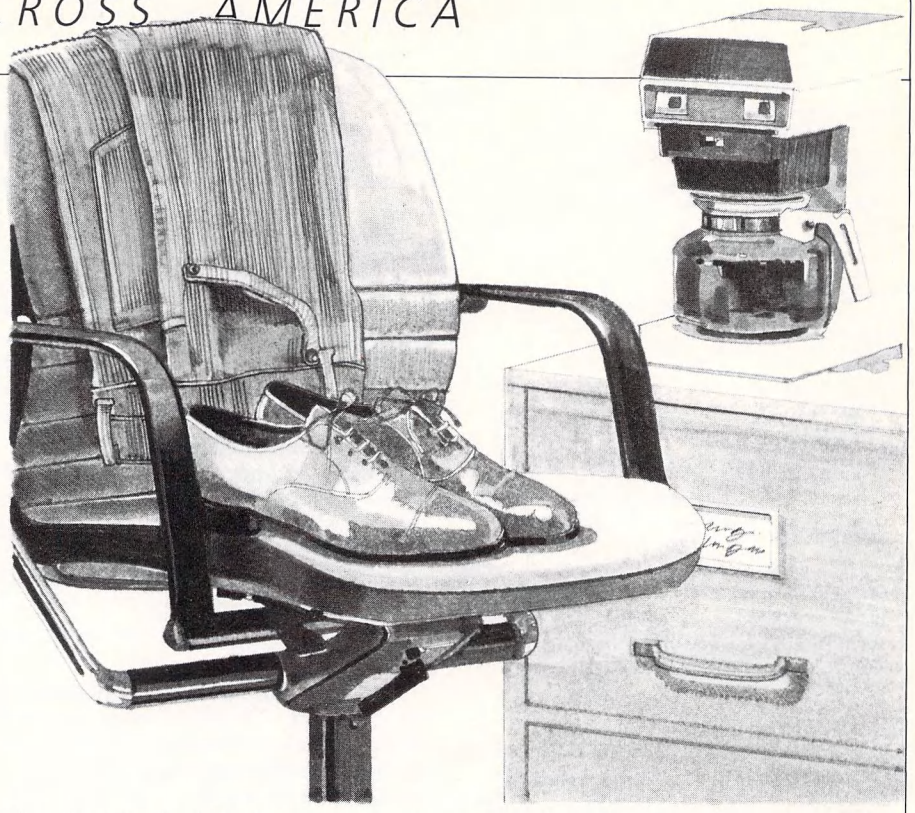


Douglas G. Branstetter
Editor

Chapter 20

The Greatest Risk

Editor's note: Steve Roberts, Online Today's nomadic journalist, is currently traveling around the United States on a recumbent bicycle. He uses a Hewlett-Packard Model 110 for both writing and communication. During this trip, which is expected to cover 20,000 miles, Roberts is writing regular columns for Online Today, *as well as a book, entitled* Computing Across America, *which will be published by Simon & Schuster this year.*



It began slowly, subtly. First it was just a pair of corduroy pants, then it was leather shoes. Then a Mr. Coffee. And then along came the swivel chair, some files, an ink-jet printer and a library card.

This all sounds harmless enough, but collectively these things have come to coddle me like a miniature suburbia. I could no more hit the road tomorrow than sprout wings and soar out over the Pacific.

William Least Heat Moon said it neatly: "The wanderer's danger is to find comfort." While I would hardly label a missed book deadline "comfort," I have nevertheless become complacent in this strange little place called San Clemente. The twice-daily routine of signing onto CompuServe via a TERMINAL CONFIG file created way back in '84, the slowly growing circle of friends, the familiarity of the shower knobs . . . this is how a home starts, whether you want one or not.

Well, I don't want one. Not yet. And certainly not here.

From this $20 thrift-shop swivel chair I have been soaring down mountain roads, cavorting with friends and building layers of realization onto the complex memories of an 8,600-mile journey. And all of a sudden, I am beginning to see the fears that lie behind the awe in the eyes of strangers. I suddenly understand why I've been credited with everything from raw courage to total madness. In this little room, it's as clear as the headlight of an oncoming train, a glimmer first mistaken for the light at the end of the tunnel.

Yes, in the context of my newly stable life, the trip now seems improbable and insane — even to me. Finishing the book and returning to the road is as frightening as was setting out from the CompuServe parking lot a year and a half ago.

More so, actually — I now know what's out there.

I realized with a bit of shock the other night that I have tempted death quite a few times in the last 18 months — on the 48-mph brakeless nighttime drop down McClure Pass, with the guitar-wielding punks in Key Largo, with a belligerent drunk in northern New Mexico, and with dehydration in west Texas. I was shot at in southern Colorado, threatened by a human sledgehammer in Santa Fe, and nearly felled by a dead deer in Utah.

It's pretty risky, this business of living on a bicycle.

Risk. It's a subject dear to the hearts of insurance companies; it's anathema to the complacent. It is as much a part of my travels as the bicycle itself, yet I still feel the twinge of nervousness about the road ahead.

I sit here in my safe little room, staring at the dusty bicycle like an abstract sculpture over against the wall, and I realize that almost everyone, including me, has at one time or another shrunk from a growth opportunity because with it comes . . . the Unknown. The Unknown! Yikes! What's *out* there, anyway?

Disappointment? Derision? Danger? Defeat? Death?

Those are all bad, certainly, but none of them are nearly as bad as "nothing." None of those things could possibly be worse than the horror of Neutrality that creeps like a psychic tapeworm into the mind, demanding a steady diet of the bland to let it propagate and infect those nearby. It's insidious, evil and epidemic in America. It slithers out of TV sets; it crawls from the pages of popular media. It hides in classrooms and slips unnoticed into vulnerable young brains.

And it does all this while masquerading oh-so-brilliantly as knowledge and truth. Neutrality is the adulterant of passion, the assassin of curiosity, the lobotomizer of life itself.

A friend's mother once listened to me talking excitedly about my upcoming journey and shook her head in protective maternal fright. She summed it all up without even realizing it: "But honey, there are things out there . . . there are things out there we don't even *know* about!"

Right on.

It is possible to have growth without risk, but it is growth of the slow, vegetable kind, rarely yielding those magical breakthroughs that make you light up with an understanding. It doesn't take anything quite so radical as an epic bicycle trip to do this, of course, only the courage to risk the Unknown.

Because the greatest risk of all is taking no risk. That's the one that can really get you, the death worse than fate.

So. Curious about something? Restless? Hungry for knowledge or change? Got a dream?

Go for it.

Steve Roberts publishes a more current account of his adventures in a CompuServe database (GO CAA for details). His CompuServe User ID number is 70007,362.

LETTERS

Cracking programs

In reference to the letters in your May issue regarding David Tillingharst's piracy, could you please help clear the air regarding this type of crime?

Would you please print a list of software companies that have produced a quality product at a competitive price and have subsequently been driven to bankruptcy by software piracy? Just exactly how many hard-working, honest businessmen have been put on welfare because of piracy? My guess is the same amount of record companies out of business because of tape recorders.

I understand that piracy is both morally and legally wrong, but I'm having a hard time understanding what real damage it does. Much of what I hear from software publishers has the appearance of whining. Some real statistics of actual damage, not merely projections of theoretical lost profit, would be helpful.

Steve Standish
Oswego, N.Y.

Coverage of Apple Computers

In response to Ken Schneider's letter (June issue), I have suggestions on how to remedy the lack of information on Apple computer products.

If you have a need for a particular type of hardware or software, go through every computer magazine you can find. The chances are that some manufacturers making products for other computers also make a version for the Apple computers. Even some of the products mentioned in *PC World* have Apple counterparts.

Next, try browsing through computer books. Finally, if you are interested in a piece of equipment that your dealer cannot provide, write or call Apple or the company manufacturing the product designed to work with the Apple.

It takes initiative to find what you want sometimes.

James G. Johnson
Spring Valley, Calif.

I agree with Ken Schneider's assessment of your product review policy as stated in the June issue. I, too, am an Apple computer user and would like to see more reviews of Apple products in your magazine.

I find your rationale as to why Apple products are not often reviewed somewhat incredulous. How do other publications obtain their products for review? I agree with Ken that you are alienating a large share of readers. Please try for a solution to this problem.

Robert Henderson
Hyattsville, Md.

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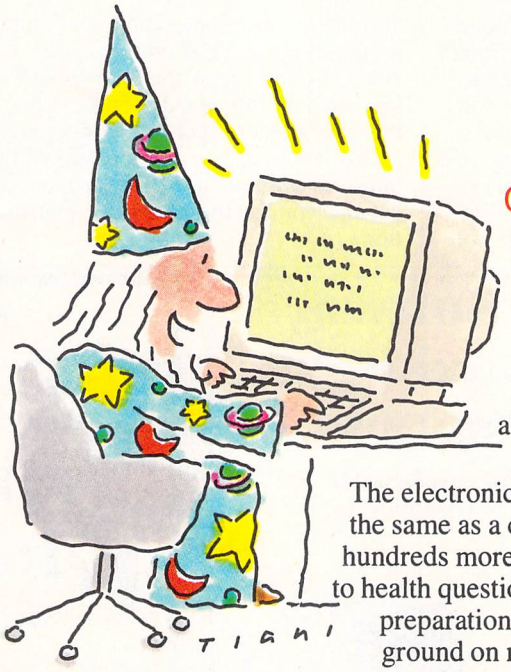

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CompuServe Page EBB-160
ONLINE TODAY ADVERTISERS/EBB
1. July 1985 Advertisers
2. June 1985 Advertisers
3. May 1985 Advertisers

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At the end of each electronic version product review, you'll be asked if you wish to request further information through the Electronic Bounce Back system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, go to page EBB-280 and select the appropriate listing, such as July Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the EBB system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

CompuServe Page EBB-280
REVIEW LISTINGS/PRINT EDITION
1. July Hardware Listings
2. July Software Listings
3. July New Product Listings

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CompuServe Page EBB-70
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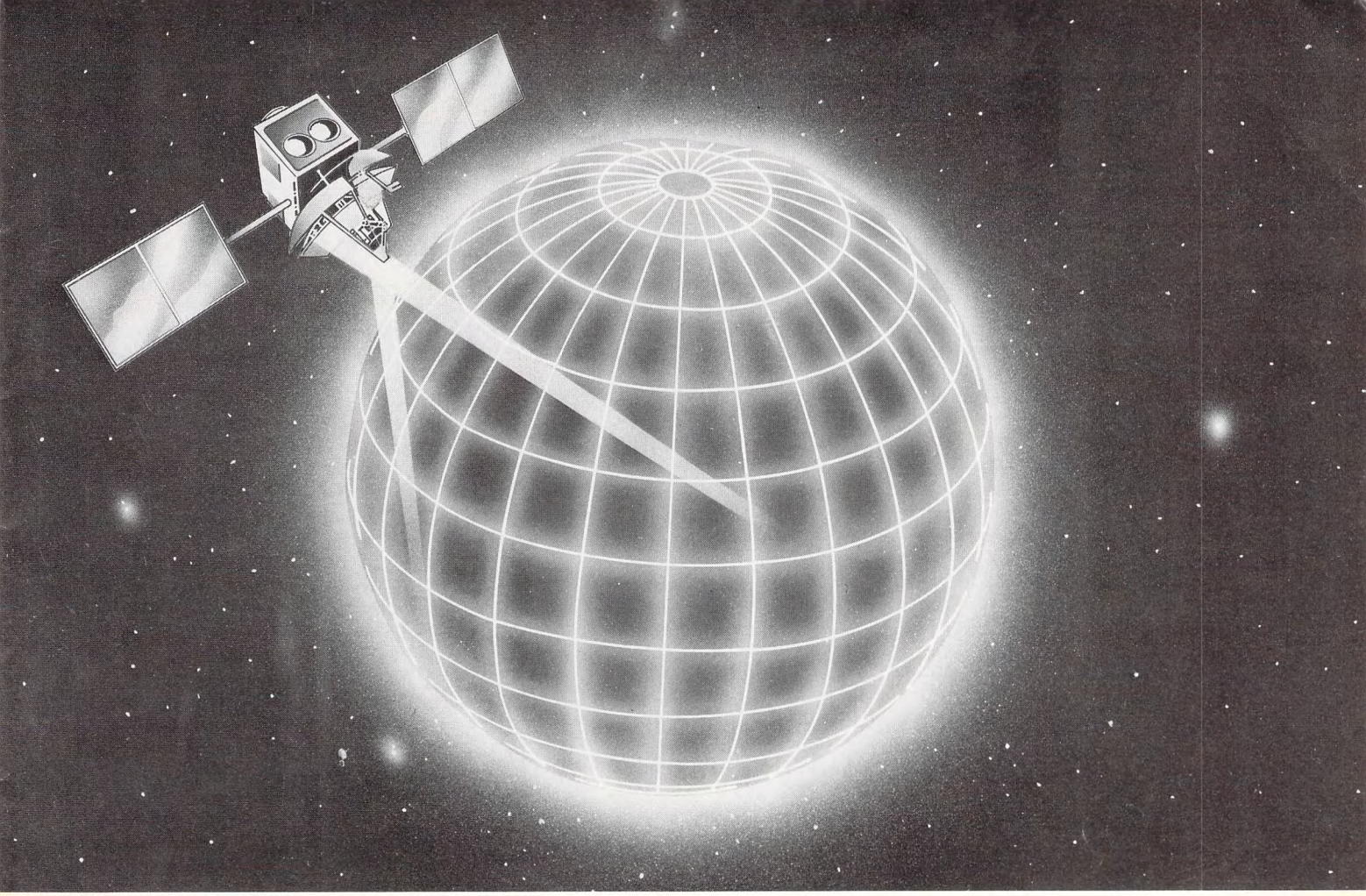

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Guarding Against Online Data Loss

For online information service users, few things are more exasperating than downloading or uploading scrambled data. Sometimes the errors are caused by a noisy telephone line. At other times, a power surge or faulty disk unexpectedly robs data.

The best way to ensure that you receive and transmit 100 percent perfect data is to use a communications program that features an error-checking protocol. The most popular protocol is XMODEM, devised by telecomputing wizard Ward Christensen, father of the first online bulletin board. Under Christensen's protocol, information is sent in short, discrete blocks. As the data is being transferred, XMODEM continuously monitors the incoming information for errors. If a glitch is detected, the protocol tells the host computer to resend the data until an error-free block is received.

Although Christensen's system works almost flawlessly and has become a defacto standard for a corps of dedicated users, relatively few communications programs and even fewer information services support its use. Software packages that provide an XMODEM capability are ASCII Express Professional (for Apple II systems) and Transend/PC, Crosstalk and PC-Talk III (for IBM PCs and compatibles). Among online information services, only CompuServe provides complete XMODEM compatibility, although many local bulletin boards also support the protocol.

With any luck, XMODEM will garner increased support in the future. The protocol is in the public domain, so any company wishing to add the software to its product or service can do so without charge. If you're interested in further details, you may want to drop Christensen a message on his Chicago bulletin board: 312/545-8086.

— John Edwards

The Shows Go On

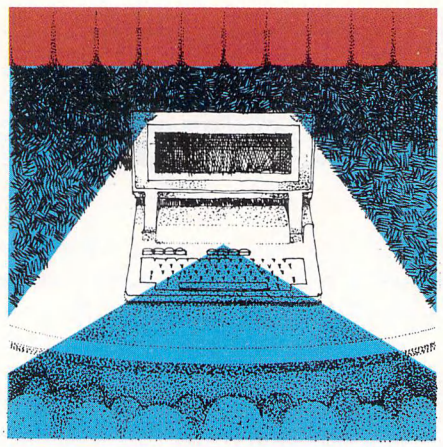
For a time, it seemed as if there would be no end to computer shows. Back during the peak year of 1983, hardly a day passed without one or more promoters unveiling plans for a new string of events. Then, almost overnight, shows started failing and attendance began to sag at even major events.

What a difference a year makes. While computer shows have yet to match the records set a few years ago, the industry is on the rebound.

"Like the business they reflect, computer shows have changed," claims David Sudkin, president of Computer Faire Inc., the company that operates the West Coast Computer Faire, one of the few remaining major general-interest computer shows.

"The shows have become more specialized," he says. "You rarely see new events geared toward all computer users or even all users of a certain brand of computer. With the exception of our show, which has a 10-year base of experience to draw from, home user shows have pretty much died out. Today, a show must cultivate a carefully defined niche in order to survive."

Currently, the computer show industry is dominated by the the Interface Group, a Needham, Mass.-based company that sponsors such major events as



Comdex and the Computer Showcase Expos. Richard L. Schwab, Interface's director of marketing, believes that computer shows parallel the economy as a whole. "When business is down, the show industry is down. When times are booming, as they are now, more people are interested in new products and come to shows."

He notes, "I think all we've seen so far is a classic industry shakeout. The biggest and the best have survived."

— John Edwards

Library Online

The New York City Public Library is about to become the first major U.S. library to switch to an all-computerized book filing system. This autumn, the library's rows of traditional card files, which catalog 1.8 million books and publications, will be replaced by a room of modern computer terminals.

A library spokesman says the switch to high technology was made with both user convenience and cost in mind. "This is the wave of the future for all libraries," she says. "The system has been designed to help the user and save the library money. The object has been to make searches as fast and painless as possible."

According to the spokesman, the computer will eventually be expanded to catalog books in the system's branch libraries as well as the main institution. The main library operates branches in Manhattan and the Bronx from its famous home on Fifth Avenue and 42nd Street. Separate library systems serve residents of New York City's other boroughs.

— John Edwards

Christian BBS Online

Churches that want to reach individuals beyond the pulpit and Christians who want to do more than just go to Sunday services can now tap into the new Christian Community Service Bulletin Board, a free service of Life-Line Studio Ministries Inc.

By calling 516/485-4892 (via modem), users can access church news, New York City community news, a handicapped section, advertisements from supporters, health information, Bible discussions and cooperative educational services. Initiated and operated by Darryl Breffe, who is blind, the bulletin board system is being billed as a new way for poorer churches to advertise.

Breffe, who runs the 24-hour bulletin board from a TRS-80 Model 4, says the main audience for the system will be pastors and ministers as well as handicapped users. For information, contact Breffe at Life-Line Studio Ministries Inc., 31 Dakota Pl., Hempstead, NY 11550; 516/485-4877.

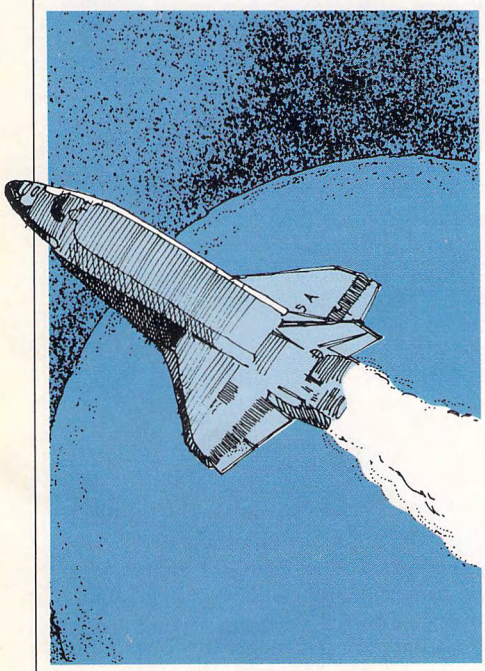
— Cathryn Conroy

NASA "GAS" Online

To get the up-to-the-minute scoop on the world of zero gravity, NASA invites the public to access its GAS (for Get Away Special) Net bulletin board at 301/344-9156. Listed are GAS Net conferences, a daily newsletter from the Kennedy Space Center's public affairs office, and information on how Americans can participate in the Get Away Special.

Although the 24-hour board can be read by anyone equipped with a modem and computer, only GAS participants may post information. According to Clark Prouty, acting manager for the GAS program, that privilege will cost you between $3,000 and $10,000.

Just what is a Get Away Special? "The GAS program offers anyone in the free world an opportunity to fly a small, self-contained experiment on a space shuttle mission," Prouty explains. NASA doesn't judge the merit of the project — it could be a high school science project or a sophisticated experiment by a noted physicist — but it must be oriented toward scientific research, and it must be safe.



According to Prouty, 29 payloads have been sent into orbit so far and about 450 payloads are slated for future shuttle flights. All involve studying the effects of a gravity-free environment on various substances.

— Carole Houze Gerber

SEC to Develop Electronic Filer

As the U.S. government discovers the power of telecommunications and electronic filing, images of George Orwell's *1984* can't help but come to mind — even if it is 1985.

The first government agency to develop an electronic filing system will be the Securities and Exchange Commission. Dubbed EDGAR (short for Electronic Data Gathering, Analysis and Retrieval), the system will be used by publicly owned corporations to file various required quarterly and annual reports with the SEC — via telecommunications or on a floppy disk or computer tape.

SEC's pioneering efforts are being lauded, but there is criticism of the agency's *methods* of establishing EDGAR. The Information Industry Association, a trade group in Washington, D.C., told Congress its concerns are centered around the fact that IIA believes the SEC did not conduct the project with the level of openness and accountability that Congress and the public have a right to expect.

"The SEC is essentially setting the ground rules for a whole new type of information management in the federal government," says Bob Willard, the IIA's vice president for governmental affairs. The IIA urges that laws be amended to deal with policy in the realm of electronic filing.

Another IIA concern is the rapid procurement process the SEC used to select the successful bidder, Arthur Andersen. "The request for proposals was only open 60 days," says Willard, who adds that had it been open longer, more proposals would have been submitted.

Above all, says Willard, "We just want to make sure the potential of this system is not neglected."

— Cathryn Conroy

Smart Card Debuts in Italy

Not all high-tech developments occur in major metropolitan areas. For example, the citizens of Bormio, Italy, are way ahead of most of us when it comes to using computer technology.

The Italian bank Credito Valtellinese recently chose the Bormio area for that country's first field trial of a Point-of-Sale payment system using the French-developed Smart Card. The bank distributed some 5,000 Smart Cards — which they have dubbed Tellcard — and placed 35 offline POS terminals in the shops and hotels of this resort area, which was host to the 1985 World Ski Championships in January.

The Smart Card, the size of the traditional credit card, has a programmable microchip that gives it memory and intelligence and unparalleled security.

Bormio was chosen because of its high tourist activity, and the annual invasion of foreign and domestic visitors for the ski season. In fact, visitors who had American Express and VISA accounts were given Tellcards and allowed to participate in the experiment.

The cards are being welcomed by area merchants, who find credit card fraud a growing hazard of business. With Tellcard, users confirm their identity by keying a personal identification number into the POS terminal. In the future, Italy plans to use the Smart Card in telebanking, pay phones and access control systems.

— Cathryn Conroy

IBM Software Directory

Looking for no-cost software for your IBM PC or compatible? The New York Amateur Computer Club has compiled a list of free PC programs, many of which are available through CompuServe's forums.

The Catalog of Public Domain Software for the IBM PC and Compatibles lists 560 programs, indexed under 19 topics. Included are telecommunication programs, utilities, languages, spreadsheet templates, games and program enhancements.

The $5 catalog is available from the New York Amateur Club Inc., P.O. Box 106, Church Street Station, New York, NY 10008. If you don't feel like downloading all of that software yourself, you can also obtain the programs directly from the club at a cost of $7 per double-sided disk. (The complete collection can be stored on 80 floppies.)

Women Warming to Computers

The male-dominated world of computers and electronics is beginning to attract women. For the first time ever, women are buying and using computers in significant numbers, according to the San Francisco-based Women's Computer Literacy Project.

"Women now own 2 million of the country's 12 million computers, and the industry is beginning to recognize that a new market is opening up," says Terry Greenblatt, director of the Women's Computer Literacy Project. She adds that women accounted for only 2 percent of computer sales a few years ago; today it is 17 percent and expected to increase.

Why the change? Project co-founder Marcia Freedman cites three reasons: Computers being marketed towards women, the efforts of the Women's Computer Literacy Project addressing women's "technofear," and office automation requiring women to learn to use computers.

But there is still a "gender gap in computing power," says Greenblatt. Studies show that boys outnumber girls 2-1 in basic computer courses at all levels, from grade school through college.

Freedman's major concern is that without advanced computing skills, women could lose much of the ground they have gained in the work force in the past 15 years. "Employment opportunities in the computer industry are excellent, and they are open to women. In fact, the computer industry is much less discriminatory, simply because they need qualified people so much. It's a good career choice for women, and girls should be made aware of this," adds Freedman.

— Cathryn Conroy

Kids and Keyboarding

Can very young children be taught to use computer keyboards effectively? And how does their level of mental maturity and physical dexterity affect their ability to master this essential input skill? Researchers at several universities began studying these questions long before touch-sensitive input pads for some educational software helped circumvent this dilemma.

In 1981, researchers at North Texas State University warned that using a standard CRT and keyboard as an input/output device would be effective only with those who could read or, at least, recognize the alphabet. However, their own experiments with nursery school children proved them wrong: All the preschool children they tested were able to manipulate the correct keys.

A keyboarding study with 5- through 8-year-olds two years later at the University of Alabama also showed positive results. No statistically significant correlations were found between motor proficiency and typing performance for 5- and 6-year-olds. Further, the children showed no signs of frustration while completing the simple word and sentence typing tasks. Not surprisingly, older children fared better than younger children and achieved higher levels of skill. While 5- and 6-year-olds progressed to typing only simple three- and four-letter words, 7- and 8-year-olds were able to type sentences as well.

All this untapped typing ability in tiny fingers is good news, of course, but the purpose of children's mastery of keyboards is not to equip them to find post-kindergarten work as touch typists. Instead, it's merely a skill to enable them to use computers effectively. What researchers found, however, was that preschool and early elementary age youngsters often became so engrossed in typing that they failed to pay attention to what was happening on the monitor. Another finding, announced last spring at a conference of the Southern Association of Children Under Six in Lexington, Ky., was the "piano-playing effect," in which young children logically expected that faster keystrokes would result in a faster monitor display.

In the face of all these complications, what can a conscientious parent or teacher do to help the fledgling but inept computerist? Enter Alan Bielawski, a computer engineering student at Worcester Polytechnic Institute in Worcester, Mass. Bielawski has developed and is patenting a separate keyboard device for young children. Equipped with two enormous yellow keys, his bright blue keyboard cover fits over a conventional home computer. In the simplest program, a child can press either key to activate a change in the number or letter displayed on the monitor. At the next level, the child must choose between the round and the square keys to effect the desired response. The patent application includes devices with more and more keys so that the keyboard can be adapted to increasing levels of difficulty until the child is ready for a conventional keyboard. Bielawski has also developed 10 software packages for preschoolers to be used with his device.

So what's the key to preschool keyboarding? According to Bielawski, who tested his product at a nearby Montessori school, this is one instance where bigger and brighter is definitely better.

— Carole Houze Gerber

Software Users' Rights

The Capitol PC User Group, one of the nation's largest IBM PC users' groups, has formulated what it calls a "Bill of Rights for Software Users." The five-point document calls on software manufacturers to reject all copy protection schemes.

Jerry Schneider, vice president of the 2,200-member association, explains that "we've been hearing about 'worm' and other copy protection systems that aim not only to protect a particular program from copying, but to destroy a user's entire software library."

Schneider says his organization has received support from other users' groups around the country, including those in San Francisco, Houston, San Jose, Calif., and Chicago.

"People are getting fed up with copy protection," Schneider says. "These systems make programs needlessly more difficult to use, complicate backup procedures and consume too much of our computer's memory." He hopes that computer users can influence manufacturers to rethink their copy protection plans.

— John Edwards

Assorted Bits

Three teen-agers have been arrested in Jacksonville, Fla., on charges they used credit card information stolen during an invasion of a TRW Corp. system in Cleveland. Eighteen-year-olds Anthony Parks and Marion Scott could each face up to five years in prison and a $5,000 fine if convicted. They are alleged to have used credit information stolen online from TRW to buy at least $800 in computer equipment.

Florida State Sen. Edgar Dunn, in response to the events detailed in the previous story, has introduced a bill that would make credit card fraud via computer in that state subject to anti-racketeering laws. The measure would also tighten Florida's existing 1978 computer crime law to allow victims to recover three times their loss from computer crime as well as punitive damages, reports The Associated Press.

Scientists at IBM have announced the development of a new fabrication process that will create the world's most dense integrated circuits. The new process shrinks circuits into an area 16 times smaller than that permitted by current semiconductor technology. IBM won't predict when it might be able to produce a marketable chip using this method.

The stumbling Knight-Ridder Viewtron videotex project dropped its sign-up costs by 40 percent in anticipation of what officials say will be a big move into the personal computer market this summer. Subscribers now can receive the service for $24.95 a month, down from $39.95.

Uninet says it will add an electronic mail service to its system at rates it said will be 20 percent lower than MCI Mail's. According to the *Videotex Now Newswire*, the service, "Worldlink," will include electronic mailboxes, telex and postal delivery, transmission of business forms and a text-to-voice conversion feature enabling users to listen to their mail over the telephone.

Apple co-founders Steve Jobs and Steve Wozniak are still feuding. Recently, Jobs commanded the owner of a Silicon Valley design studio — Frog Design Inc. — to stop working with Woz on a new consumer electronics project. Jobs told the *Wall Street Journal*, "It's not personal. We don't want to see our design language used on other products." Woz told *Online Today*, "I certainly have no intention of stealing any of Apple's designs. I don't know why he's doing this."

In other Apple news, the venerable Apple IIe computer is now being shipped with a 65C02 microprocessor, the same chip used in the Apple IIc. The move means that the IIe will now be able to run all IIc programs as well as older II family programs. The new chip will also add better graphics, mouse response and network support to the IIe. Owners of older IIe systems can receive a $70 upgrade at any authorized Apple dealer.

— John Edwards

Teletext in the Air

Bonneville International is testing an AM radio-based teletext service.

Under the system, dubbed TeleText-5, users must purchase an under-$100 receiver/software package that sends data to any personal computer at a speed of 1200 baud. The company says it hopes the advertiser-supported service will eventually allow portable computer users to receive up to 16 categories of news, stock market information, weather and other data while on the road.

TeleText-5 is currently being tested at KSL radio in Salt Lake City. If the experiment proves successful, the company may begin marketing the service to other AM outlets as early as next year.

More information is available from Bonneville International, Broadcast House, Salt Lake City, UT 84180; 801/575-7500.

— John Edwards

Videotex Directory Available

Looking for hard-to-find online information? Then you'll be interested in the recently published *1985 Videotex-Teleservices Directory.*

Priced at $80, the directory lists the information provided by more than 400 teletext, videotex, telebanking and telebrokerage services in the United States and abroad. The 270-page volume also includes data on relevant hardware and software vendors, industry associations and government telecommunication agencies.

For further details, contact the Institute for the Future, 2740 Sand Hill Rd., Menlo Park, CA 94025; 415/854-6322.

— John Edwards

Wasting Time

Own a Commodore 64 and feel in a playful mood? Then you may want to know about Playnet, an online game service aimed at Commodore 64 owners.

According to a company spokesman, the system offers such popular time-wasters as chess, checkers, reversi, tic-tac-toe and a variety of adventure games. In the future, Playnet plans to branch out into electronic mail, bulletin boards and home shopping.

Complete information is available from Playnet Inc., 200 Jordon Rd., Troy, NY 12180, 800/752-9638.

Need to Keep Up With the Computer and Information Industries?

We publish all the computer industry news every day in the *Electronic Edition* of *Online Today*. GO OLT from any prompt in CompuServe and choose "Monitor Daily News" from the main menu.

ONLINE TODAY
ELECTRONIC EDITION

VIDEOTEX LAW: LOOKING AT THE LEGALITIES OF ELECTRONIC COMMUNICATIONS

by Byron T. Scott

It was a mid-March blustery day, guaranteed to keep viewers close to their warm television sets. The clear blue eyes of daytime TV's favorite talk-show host blinked at millions.

"Do you know who can access a computer to find out how much is in your checking account? How many times you've been divorced? Whether or not you watch dirty movies?" Phil Donahue demanded. Neither hearing nor expecting an answer, he continued. "I'm telling you . . . You know what else they can do? They can get your credit card!"

Communications historians may well record that video moment as pivotal in computer-mediated communications: the moment when the masses woke up. Woke up to the legal problems that have been baffling videotex users and the industry for a decade.

Then again, awareness may await this summer's reruns . . .

The impact of the late winter Donahue show notwithstanding, the general public is increasingly aware that concerns about computer communications and the law are about more than precocious kids tapping secret databases like electronic Hardy Boys. Public fears about electronic raids on their privacy may do more to slow videotex's acceptance than any economic or technical factor. To date, industry spokesmen agree, there are more questions than answers.

"Right now, I'd advise any aspiring lawyer to study the law of electronic communications," comments George M. Minot, CompuServe executive vice president. ". . . Now there's a field you could grow old with."

Many liken the current legal uncertainties of public and private videotex to the neonatal years of radio. "What happened there is that, as the industry developed, certain problems became clear," notes a Federal Communications Commission attorney who asked not to be identified. "Then, as worsening problems threatened to retard broadcasting, the government stepped in with things like the FCC. Although, in these days of deregulation, I wouldn't count on anything quite so dramatic."

While the FCC and such other federal bodies as the Security and Exchange Commission and the Federal Trade Commission maintain a watch, events are leading toward some tentative legal trends, if not conclusions.

Questions these trends hope to answer are:

- Is unauthorized access to a videotex service a crime?
- Is videotex-transmitted data protected as free speech?
- Is videotex material covered by traditional shields from abuse, such as copyright?

Legislators seek solutions

The spectre of privacy invasion — "They can get your credit card!" — has stirred legislators at both state and federal levels. Although a federal computer crime law is being considered by a half dozen Congressional committees (see sidebar), none has yet emerged to replace antiquated legislation enacted to govern other media and correct other problems. For example, most federal prosecutions would not have to proceed under charges of "wire fraud." However, some legal progress has been made.

Legislatures of most states without relevant legislation have numerous bills in their hoppers. Significantly, many of

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those who had computer crime laws are reconsidering them in the light of videotex and electronic privacy. In Texas, the state's senate passed on voice vote a "West of the Pecos" computer crime bill worthy of Judge Roy Bean. Texas' act provides imprisonment of up to one year for unauthorized access and up to 10 years for damaging computer data or systems. In other states, the effort is to provide breadth of protection, as well.

In Ohio, for example, current statutes concentrate on the old image of industrial spies breaking into mainframes. Proposed revisions are more modern and realistic, in effect defining all data and data traffic activities as "property" that can be lost, damaged or stolen by unauthorized persons — who will be punished.

As with "model bills" being considered by many legislatures, the Ohio law will now include software, securities, credit card and banking transactions and most other information that moves in a digital network. It makes it clear that individuals as well as firms are protected. Unauthorized access specifically includes presence in any system without the password-holder's permission. The Ohio law, in early spring pending in the House Judiciary and Criminal Justice Committee, defines computer crime as a felony, punishable according to the degree of damage inflicted or services stolen.

One pivotal problem in considering videotex crime is the movement of data across state lines. The Videotex Industry Association "model bill" as well as the Ohio legislation, seeks to solve the dilemma: "Where do you prosecute?" Venue, the legal term for jurisdiction, is established not only at the service's mainframe, but wherever the defrauded customer or the computer pirate have their terminals. The intended effect is a multi-barbed "Gotcha!"

In Washington, where a dozen computer crime bills have been considered and left to die in recent sessions, consensus may be developing around legislation sponsored by Sen. Patrick Leahy (D.-Vt.). As senior minority member of the Senate Judiciary Committee, Sen. Leahy is proposing broad amendments to existing laws, principally the National Communications Act and the Wiretapping Act, which go back to 1968. The tactic of amending tested and respected laws may be a better route than enacting new and untested laws just for videotex, a spokesman for the Committee reasoned recently. In fact, the Leahy bill, sidetracked in the fall by elections and in the winter by deficit debates, emerged with fresh energy in the spring, fueled in part by one of the most bizarre instances in videotex's short history.

Criminal customers

Unauthorized users are enough of a problem . . . but what happens when legal customers are also criminals?

Leo Radosta of Detroit was a paid-up customer of The Source, a large public videotex service based in McLean, Va. Like many videotex customers, he was an active user of electronic mail. Without warning, The Source received a subpoena from a federal grand jury, seeking to look at Radosta's electronic mail. The customer, it was alleged, was the "kingpin" of a cocaine ring who was using videotex to communicate with dealers and smugglers in New York, Florida, Texas, Colorado and California.

At the request, the videotex service's lawyers filed a brief, claiming the service could not give up a customer's private transactions, criminal or not, without a warrant. "Not so," replied the feds.

Amending tested and respected laws may be a better route than enacting new and untested laws just for videotex.

The data were not subject to the protections of telephone conversations or even first-class mail, a counter brief contended. Because backup magnetic tapes were made of all data on the system — a standard procedure in case of power loss — Radosta's electronic mail became a "third-party record."

Contended Joel Shere, United States Attorney for Eastern Michigan: "The government has the right to subpoena third-party records without the necessity of obtaining a search warrant just as we are able to subpoena corporate records or bank records." Who was right? Could a standard safety procedure, intended to aid customers, destroy their expectation of privacy? That, as they say in the courts, remains "a moot question."

Before a federal judge could rule on the subpoena's legality, Radosta pleaded guilty to drug trafficking and was sentenced to 10 years in prison. The issue remained unsettled; the experience was unsettling. The American Civil Liberties Union cried that, if wiretapping and mail interception protections do not apply, data transmission becomes unsafe for everyone. An official of the Electronic Mail Association commented more mildly, "There is apparently a hole in the law."

The Radosta case provided new fodder for hearings before Sen. Leahy's subcommittee. Both Attorney General Edwin Meese and FBI Director William Webster promised to review the federal policies toward electronic data transmissions. Neither would lend immediate support to strengthening privacy protections, however.

If, however, as an executive of the Information Industry Association testified, "legal protections must be transparent to what form communication takes," what about older, Constitutional protections? Is videotex protected by freedom of speech or by freedom of the press? To date, there have been no legal decisions on those questions either. But there was another "almost" — this one in California.

The 'Modem Freedom Case'

There are dozens of special interest forums on public videotex services and uncounted hundreds of bulletin boards operated by computer hobbyists. Tom Tcimpidis had one of the latter, "the Mog-Ur," operating from his San Fernando Valley home. Last summer, police raided his home and seized all his equipment. Tcimpidis was charged with telephone fraud. The great "Modem Freedom Case" was launched.

Acting on a tip, police had found an AT&T credit card number posted anonymously on the Mog-Ur board. Tcimpidis contended that he didn't know the number was there until police and Pacific Bell informed him of it — by serving a search warrant. If Freedom of Speech is worn with electronic pride anywhere in the United States today, that place is California. Computer hobbyists, legislators and lawyers arose in Tcimpidis' defense. One legislator threatened to amend California's constitution to protect computer hobbyists. But again, the case never got to trial.

In February, charges were dropped against Tcimpidis — who has since changed his bulletin board to a subscription service. The prosecution ad-

mitted it could not prove a connection between the accused and the posted credit card number. "This is a victory for freedom of speech over the Big Brother telephone company," declared Charles Lindner, attorney for Tcimpidis and himself a computer networker. "I think the telephone company sees this form of communications as a threat . . . (and will) stifle it as much as it possibly can."

Ironically, a bill subsequently introduced into the California legislature asks for penalties to be imposed on bulletin board operators who do not monitor the communications of users. The responsibility of larger public services for illegal actions remains an untested question.

A remaining major legal problem involves videotex transmissions as property. Do the laws of copyright that apply to print-on-paper also apply to electrons traveling through space? The U.S. Copyright Act, amended in the 1970s, does not mention copyright. However, videotex services are proceeding as if the protection does exist. All major public services, including CompuServe, The Source and the Dow Jones Information Service, include the circled "c" at the top of original stories and information. "It may be some time before this thing is thoroughly tested," says James Ambrosio, a top editor of the Dow Jones service, "but in the meantime we intend to protect our property in the traditional way."

This includes warning anyone who copies and reprints text, in any medium, that they are infringing on private property. Some bulletin board and forum leaders have unwittingly copied material from the electronic version of *Online Today* (GO OLT). The reaction is a stern warning and monitoring for further violations, according to Editor Doug Branstetter.

The assumption that videotex is covered by copyright also is being taken by Sen. Leahy of Vermont in his hearings. An appropriate amendment to the copyright act is expected to make that explicit. Meanwhile, proponents of videotex copyright point to the recent ruling by a Nashville federal judge protecting computer programs. U.S. District Court Judge Thomas A. Wiseman ruled that "ideas, organization and structure" are protected by copyright, whether in written or electronic form. His opinion declared a commercial statistical program, modified by Vanderbilt University to run on a different type of computer, was copyright infringement. "The underlying idea of copyright is as valid as it ever was," comments Robert Weissman, president of Dun & Bradstreet Corp., ". . . perhaps even more so with the greatly increased importance of information."

As the videotex industry grows into its second decade, the legal questions far outnumber the answers. The certainty is that more issues will arise as the industry approaches its adolescence. By 1990, as many as one-fourth of American homes will have access, according to a recent study by Arthur Anderson and Co., a Chicago consulting firm. That's up from about 10 percent in 1985. Sales will grow to more than $2 billion a year in that time, the study predicts. Meanwhile, videotex companies compare the certainty of growth with the uncertainties of videotex law. Many are probably asking: how much of that revenue will go into legal fees? Not even Donahue knows for sure.

VIA Surveys Membership on Computer Piracy

Unauthorized access plagues two-thirds of U.S. videotex companies, resulting in losses ranging from thousands to over a million dollars per year, a recent survey indicates.

Seventy-nine corporate members of the Videotex Industry Association and the Information Industry Association replied to the survey, attempting to assess the magnitude of computer piracy — and to provide ammunition for groups seeking federal and state laws to punish offenders.

"What we needed were numbers we could depend on," comments George M. Minot, chairman of the VIA's unauthorized access committee. "I think the Congress and most legislatures want to get something on the books this year."

The survey, which included virtually all companies with public videotex databases, showed outsiders rather than employees are the most common offenders. In many companies, unauthorized break-ins are detected weekly, sometimes daily. Security checks and customer complaints uncovered most of the instances. Illicit entries frequently result in damage to software and databases, theft of the data itself and infringements on customer privacy.

Although a third of the companies estimated annual losses at less than $10,000, most of the remainder gave estimates that were considerably greater. A half dozen firms say piracy costs them better than $500,000 a year, two more than a million. A significant proportion of videotex firms still are trying to find accurate ways to estimate loss.

While waiting for appropriate federal and state laws, most companies handle unauthorized access on a case-by-case basis. For various business and legal reasons, only a very few have prosecuted and captured pirates. Most feel that current laws are inadequate.

What should be done? Three-fourths of the respondents favor federal legislation. Nearly two-thirds would make unauthorized access a felony, particularly in cases of repeated attempts. In addition, virtually all favored public education campaigns to bring the seriousness of the problem to the public. As one executive commented: "It's not a game."

Similar surveys of other segments of the computer industry have shown the reality of computer crime. The Data Processing Managers Association, for example, found 21 percent of its members had experienced losses.

The Videotex Industry Association, which is among professional groups lobbying for "model computer crime legislation," recently redrafted its bill for federal action. The VIA bill is one of two being considered by the Council of State Governments as a guide for the numerous proposals currently before state legislatures.

Federal legislation now before Congress ranges from a Senate bill calling for imprisonment of one-to-five years for unauthorized access to a House act setting a range of punishments for both misdemeanors and felonies.

The study of the videotex industry was conducted by the E.W. Scripps School of Journalism at Ohio University on behalf of the Videotex Industry Association.

— *B.T.S.*

Tracking Your Bill

Using CompuServe is a great deal of fun. So much fun, in fact, that a telecomputing session often seems much shorter than it really is! You can spend hours in a single program, never knowing where all the time goes. Those who habitually jump from one part of the system to another often log on a number of times in a single day, keeping up with changes throughout the network.

But online fun costs money! As the hours mount up, so do the billing charges. Often a user is surprised by how many hours he's totalled over the course of a month. Many an EasyPlex comes my way, mournfully begging for information of how the bills are worked out, or asking for some way to track online charges.

Luckily, a program for just that purpose resides on page BIL-5. As you enter the menu, a number of options present themselves. You can break down your time online by weeks, request a printed copy of the entire report, check out how long you've spent online during the current week, and more.

To keep those bills down, let's run through the billing program here. Once you're familiar with it, you won't have to experiment with the program when you use it online.

The first option, "Explanation of reports" is a short description of all the other options. We'll skip that, since that's what we're up to right here, and go directly to Item 2, "Week by week summary."

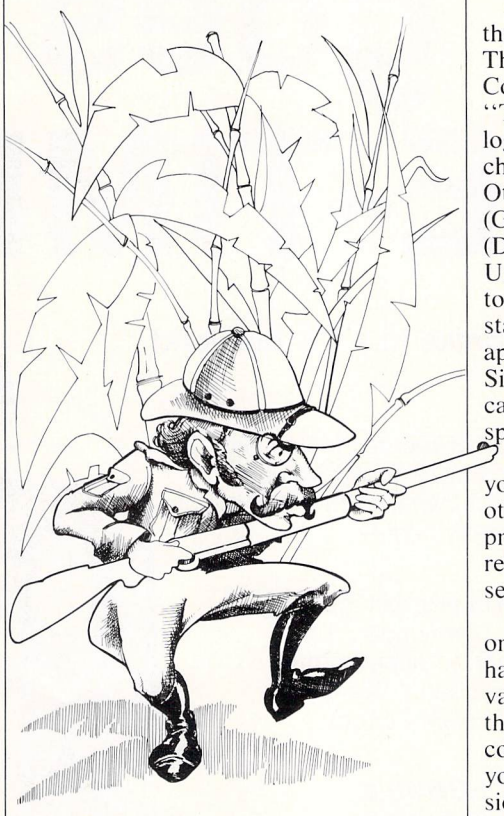
The summary breaks down your charges into separate weeks, ending on Saturday of each week. Your summary will look something like this:

6/15 $59.04 6/15

The first date is the Saturday on which that billing period ended, June 15th. The third is the same, as the program charged that $59.04 to your bill on the same day. But what does that figure represent?

To obtain a breakdown, you must use Item 3 on the billing program, "Usage analysis by week." Once you've chosen it, you'll be asked for the date of the week you want to take a closer look at. Be sure to use a Saturday! The program stores all billing information in terms of that final figure on the "Week by week summary" listing.

Now your readout includes the number of hours you spent online next to the word "connect." Five hours and 51 minutes totals $52.14, plus a communications



surcharge (charged by the telephone company but collected by CompuServe) of $1.49. The readout that now appears on your screen is far more detailed. Each logon is noted by time, as is each logoff. The number of minutes between those two parameters is included with the cost for each session.

Still, you'd like more information. Returning to the BIL-5 menu, choose Item 4, "Transaction Session Analysis." First, the system will ask if you prefer older codes, used since the program's founding, or newer ones. Let's choose the new codes. We aren't wedded to the older set by experience, and the new codes are more easily understood.

Suppose you get a set of lines that begin like this:

6 1 CP 15:14/15:22 8 1.70

What does this mean? Well, the initial "6 1" was the date of the session, June first. "CP" means you were on during the more expensive "prime time," for which CompuServe charges $12.50 an hour at 300 baud. You were on from 3:14 to 3:22 in the afternoon — those "15" numbers are on a 24-hour clock. That totalled 8 minutes of usage, which cost $1.70.

On your readout, though, perhaps that "CP" became "TP." Not to worry. The "C" indicated you used a direct CompuServe node. If instead you saw a "T," this merely indicates that you logged on via Tymnet. Of course, the charges are slightly higher that way! Other node indicators include "G" (GTE Telenet), "A" (AlaskaNet), "D" (DataPac) and "W" (Telenet Western Union). You may also see a final indicator next to the node and prime-or-standard-time indicator, a "2." If the 2 appears, you were on a 1200 baud line. Since 300 baud is "standard," no indicator appears for the slower transmission speed.

At the end of your list of sessions, you'll be asked if you'd like to view another week of sessions, for which you'd provide a date, the next week, or simply return to the menu. Let's do the last and see what else the program supports.

Item 6 on the BIL-5 menu allows you to order "hard-copy listings." Those who have no printer might want to take advantage of this option. After you specify the week, CompuServe will print out a copy of that week's listings and mail it to you. Such a permanent copy of your sessions will not vanish as the months scroll by and the billing program moves on to new information.

But, in the end, what you really want to know is: How much do I owe? The last two menu options provide this information. Either will list your total current charges, along with a due date. Number 7, "direct billing," relates primarily to businesses. Direct billing for regular customers was replaced by option 8, "Checkfree." The Checkfree billing method allows you to avoid writing checks, stamping envelopes and finding a mail box. Once a month, CompuServe sends you a notice of your bill. If you don't have a correction to make, that amount is automatically withdrawn from your checking account.

So use the billing program once in a while. It will let you track just how much you've spent each month and save you from your own excesses. Fun is always worthwhile, but it's wise to make certain you can pay for it!

Alex Krislov is a free-lance writer from Cleveland. His CompuServe User ID number is 70007,2130.

ON-LINE PC goes PRIME-TIME TV!

At last! A TV Game Show comes to a PC Network!

New, on CompuServe, is "You Guessed It!". Match wits with new friends and old in hot contests to win valuable prizes. And here, with his personal invitation to YOU, is your polyester-plaid-clad game show host—
BOB ILLUMINATI!

"Is the "mike" on? It is?" RIGHT! Let's roll! ⟨flashing a size eleven smile⟩ "So, folks . . . why play "You Guessed It!"? Because, in addition to enjoying my sophisticated wit, good looks and charm, this game gives you the opportunity to . . ." ⟨clears throat and turns left profile to camera⟩

"enjoy the ***WACKED-OUT HUMOR*** of announcer Phil Vox and the rest of the "You Guessed It!" studio crew;

meet ***GROOVY GUYS AND GALS*** in 'round-the-clock team and individual play;

view games as a member of the ***PARTICIPATING AUDIENCE*** from the comfort of your home recliner;

accumulate points towards ***FABULOUS PRIZES*** to tantalize your friends and torment your enemies;

and make after-game mischief in the ***PLAYERS' LOUNGE*** with the regulars!"

⟨tripping over the microphone cord⟩ "Take it from 'ol Bob, folks! Don't sit before the tube riveted in envy watching someone else have all the fun and win all the prizes! Turn to your pc and make the game show experience your own! So remember, what's the first thing you're going to do the next time you "tune" into CompuServe?" "YOU GUESSED IT!" (Go YGI)

YGI! ©1985
YOU GUESSED IT!

YGI!™ is a service of
Hallmark Cards, Inc. and
CompuServe, Incorporated.

"You Guessed It!"

America's favorite entertainment has found its way to CompuServe's Information Service. Now, you can test your wits and win valuable prizes, right from your computer keyboard. "You Guessed It!", a collaboration of CompuServe and Hallmark Cards Inc., is a multiplayer, interactive general information/trivia game unlike any you've seen before.

When you type GO YGI, you'll enter the fast-paced world of Creative Compu-Casting Co., producers of "compucast games," blending television game show formats with the interactivity of online communications.

Dominic the Doorman will welcome you into the Studio Lobby, where you can chat with other game participants and use a special communications tool, Personal Bios. Simply answer a set of questions, such as your handle, gender and hometown, and then compose a brief statement about yourself. Scan the other bios to meet new players and choose team members. You can change your bio at any time to reflect exactly who you want to be. Personal Bios are optional, but you'll want to try them.

"You Guessed It!" is broadcast beginning every half hour. When you enter the Studio for the regular show, you'll join a team of other players. A team assembly mechanism allows you to select your own team members. Or, if you prefer, the computer will match you up with a team. You can even choose to be a team captain. There's something for every level of involvement in "You Guessed It!"

If you want to be an audience member rather than a team player, you can still be part of the action. Not only can you watch games in progress but you can also answer the questions posed to the players on the Studio Stage. As a participating member of the Studio Audience, your responses will have an impact on the outcome of the game.

After exiting the Studio Lobby, you'll be ushered into the live game area, populated by computer personalities, other players and an audience. The game starts as two teams face each other "on stage" in a competition refereed by game show host Bob Illuminati and his sidekick Phil Vox. Along with Bob and Phil, a crew of studio production folks will talk to you, tease you and cheer you on to victory.

The general information and trivia questions posed to the teams and the audience are open-ended; there is no single right answer. A sample question might be: "Fact or fiction, name a famous Jones." Some possible answers include James Earl Jones, Barnaby Jones, Tom Jones, and even Indiana Jones. They're all right. Audience responses are then blended with historical responses from past games to compose the Big Board. Team members will be given points for matching the most frequent responses. Even members of the losing team will get some points for participating.

As you play, you'll accumulate points toward a variety of prizes. "You Guessed It!" has real-world sponsors, named as you progress through the game. You can convert your points whenever you want, choosing to get a prize requiring fewer points or continuing to accumulate points for major prizes like travel tickets and home electronics. The game itself may be a fantasy, but the prizes are real.

After a tough game, you'll want to unwind with other game players in the 3-C Lounge. If you liked the computer personalities in the "You Guessed It!" game, you'll really enjoy the ones in The 3-C Lounge. Hostess Connie LaBomba will greet you with a lounge menu. Sip a "Sterno Fizz" while trading gossip with Gus the Bartender. Or hum along to the wacked-out song parodies of torch singer, Aida Glottis and her pianist, Jeffrey. You're always welcome at the 3-C Lounge.

You can play Hallmark's interactive game as often as you like, accumulating points along the way. If you're ready for humor, competition and prizes, join the crowd at "You Guessed It!".

— Alex Krislov

Create Animations With Movie Maker

Interactive Picture Systems, *Family Computing* and CompuServe are the first to use videotex to offer animation graphics, now available in the *Family Computing* data library on CompuServe. And for those with a creative flair, there is a contest with $1,500 in prizes for the best animations created with IPS' Movie Maker software.

Movie Maker is an animation software package enabling users to create animated characters and backgrounds — or to use pre-drawn figures — and set them in motion in an original movie. You can draw and move the characters in a sequence with your cursor or joy-stick and a few software commands from Movie Maker. Pre-drawn characters, including Pluto and Charlie, are ready for you to cast in your own production.

Animations created by professional animators using Movie Maker, are available for downloading, too. You do not need to have Movie Maker to download and run these animation files, but you do need the software to create your own movies.

Guy Nouri, president of IPS and a partner in creating Movie Maker, is excited about getting the animations online. "Companies have been trying to get graphics and animation online for quite some time," says Nouri. "Family Computing, IPS and CompuServe are jumping years ahead in technology."

The *Family Computing* Forum on CompuServe is the exclusive online distributor of these animations. You can watch Movie Maker's Charlie (who resembles one of the Chan brothers) being chased through a subway by the police. Nouri refers to this as "Saturday morning cartoons by phone." Several animations are available online now and more will be added each week.

CompuServe subscribers can run the Movie Maker animations on Apple, Atari or Commodore computers by downloading two files from the forum. First, download the "module" or program to run the animations on your computer. Then, download the animation file of your choice. The only equipment requirements for users with one of the three computers mentioned are XMODEM or CompuServe "B" protocol software and a disk. Files will soon be available for the IBM personal computer.

If you're interested in creating and directing your own animation movie, you may choose to enter your work in a contest sponsored by Family Computing, IPS and CompuServe. For the best animations created with Movie Maker, a total of $1,500 in prizes will be awarded between July 4 and Thanksgiving, with $300 for the grand-prize winner on November 25. A first prize of $200 and $100 for two runners-up will be awarded on the Fourth of July, Labor Day and Halloween.

Graphics industry professionals will be judging the contest entries on the basis of imagination and quality. Judges include Nouri, an animation columnist, the art director of *Family Computing*, a software critic and professional animators.

You can submit your animation entries by uploading them to data library 1 of the *Family Computing* Forum or by sending a *copy* on disk to: *Family Computing*, Movie Maker Contest, 730 Broadway, New York, NY 10003. Entries must include a title; brief description; name, address and phone number of the artist; and type of computer used. The disks cannot be returned.

Entries must be postmarked or uploaded to *Family Computing* by August 18 for the Labor Day awards, October 13 for the Halloween awards and November 10 for the Thanksgiving awards. For more information on contest rules, or for assistance in uploading files, type GO FAM-200 at any prompt on CompuServe.

— Mary Ellen Stone

The New CompuServe Information Service

Reflecting technology changes, product additions and input from subscribers, the separate Consumer Information and Executive Information Services will be replaced in early July by a new CompuServe Information Service with an Executive Service option.

The new service features new and streamlined menus, Quick Reference Words for direct access to popular product and service offerings, and many other capabilities to help subscribers make effective use of CompuServe.

"Customer and market research was very positive regarding most aspects of the Executive Information Service," says Richard A. Baker, manager of editorial services, "but the separate menu structures sometimes created confusion since Executive Information Service subscribers often also accessed Consumer Information Service offerings. The new service puts us in an even greater position to take advantage of the growth in videotex, to respond to our subscribers' wishes and to offer a broad-based videotex service to take us into the 1990s and beyond."

Some of the new features available to all subscribers include a "FIND" command to easily locate particular products and services, an enhanced "Profile" capability to tailor certain service characteristics to fit your personal computer and your expertise level, and an enhanced "What's New" new product/service announcement section.

Subscribers who select the Executive Service Option will receive a variety of additional benefits including access to specialized and powerful service offerings, additional personal file storage, discounts on CompuServe merchandise, volume discounts on information retrieval from selected financial databases, the option to select American Express as a monthly billing method, enhanced customer support and more. There is a $10 monthly minimum associated with the Executive Service Option.

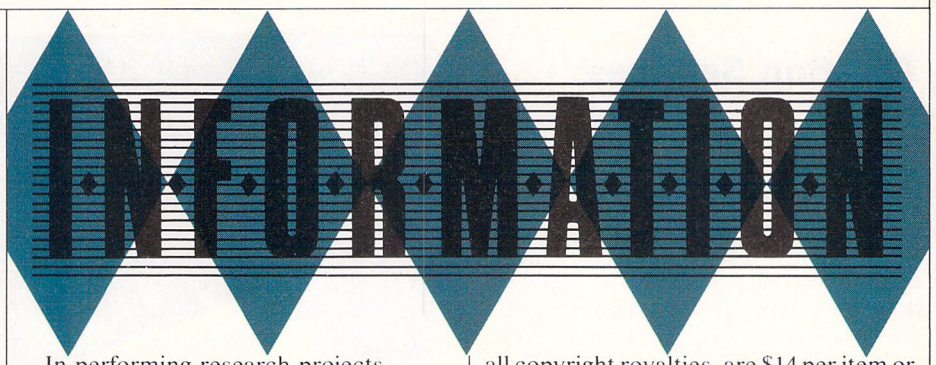
Exclusive Executive Service Option service offerings include the Executive News Service (automated clipping service), SuperSite demographic data, Disclosure II corporate information and more.

As mentioned earlier, CompuServe has restructured the upper menu levels so that subscribers can find products and services more easily. Prompts and menu terminology have also been improved to be more descriptive. Most of the changes and enhancements associated with the new CompuServe Information Service will be available in July though additional enhancements will be implemented at a later time.

A new, comprehensive CompuServe Information Service Users Guide will also be available during July.

— Robert Loomis

Locate Information on Demand



It is not uncommon in a number of professional fields — ranging from corporate finance to secondary education — for an individual to suddenly be faced with the formidable task of becoming an "overnight expert" on a topic. How does one assume this "mission impossible?" Simple. Type GO IOD at any CompuServe prompt.

Information on Demand is a full-service information gathering organization based in Berkeley, Calif. Begun in 1971 by Sue Rugge, IOD will research any topic through online databases as well as the more traditional channels, including government agencies, trade associations and major research library collections throughout the world.

Recent requests from CompuServe subscribers have included proper gambling etiquette, a census for horses and cattle, accidents involving radio transmission towers and data on the children's record market.

In addition, with a specific bibliographic reference from the user, IOD researchers will secure a hard copy of any article, report, thesis or dissertation and arrange delivery of the document.

In performing research projects, Rugge says IOD functions as a gateway to the more complex databases available, most of which are highly specialized in subject matter. A total of 13 different vendors with more than 300 different databases are at the fingertips of IOD researchers.

Says Rugge, "We are the expert intermediaries between the sources of information and the people who need them." Paying the experts, however, does cost some money, but in the end that can be far less expensive than trying to search an unknown database with online charges that can exceed several hundred dollars an hour.

IOD's basic rate is $150 plus computer search fees. Rugge adds that an average project ranges in cost from $250 to $350. Document delivery fees, which include all copyright royalties, are $14 per item or $9 per GPO publication, NTIS report or patent. All requests to IOD are first greeted with a firm quote and a budget, so "there are no surprises as to the cost," says Rugge.

Additionally, IOD offers translations of technical articles and reports and a current awareness service, where IOD tracks the issues, markets, products, companies or people in which a user is interested.

Whether it is a market survey, forecasts of sales or export opportunities, a review of new technologies, competitor analysis, patent research or research on any topic — big or small — IOD's experts know where to find it.

— Cathryn Conroy

Answers From Customer Service

Q: Why do I only get 32 characters across my screen sometimes when my computer can handle 80?

A: In the Consumer Information Service, CompuServe displays a standard menu page size of 32 by 16 unless you set your terminal settings to another size and use the scroll command when displaying text.

To establish a desired page size, enter GO TERMINAL at any prompt. Once in the program, select "View or Change Current Terminal Parameters."

"Terminal Width" should then be selected from the next menu. The desired number of characters per line can then be entered. Upon exiting the Terminal Settings program, choose to make the changes permanent.

Q: How do I create a personal menu?

A: The personal menu is created within the Terminal Settings program. Enter GO TERMINAL at any prompt then select "Setting Your Log On Actions," from the menu.

CompuServe will begin prompting you for your menu selections and page numbers (the page number that you want to access, e.g., CB-1 would take you to CB). There can be as many as 10 choices on your personal menu. To end the prompting sequence, enter a carriage return or a new line.

Once this is completed and you log on again, your personal menu will be the first menu displayed.

Q: Why do I sometimes receive garbled text and random characters?

A: The first thing to do is to check the connections between your modem, telephone and terminal.

The second most common cause of garbled text is that your communication standards are set incorrectly in your terminal emulator program. The correct settings should be:

- 300 or 1200 baud (depending on your modem)
- 8 bit word length, no parity or 7 bit word length, even parity
- 1 stop bit
- full duplex

If these are set correctly, another cause may be not having the proper terminal type set. To log on and correctly change your terminal type, append ;TTY to your User ID number. (For example, 70000,11;TTY).

Once logged on, enter GO TERMINAL to access the terminal settings program. Select "Changing Your Terminal Type" from the menu. Next, select the option most appropriate for your equipment. Upon exiting the Terminal Settings program, make the change permanent.

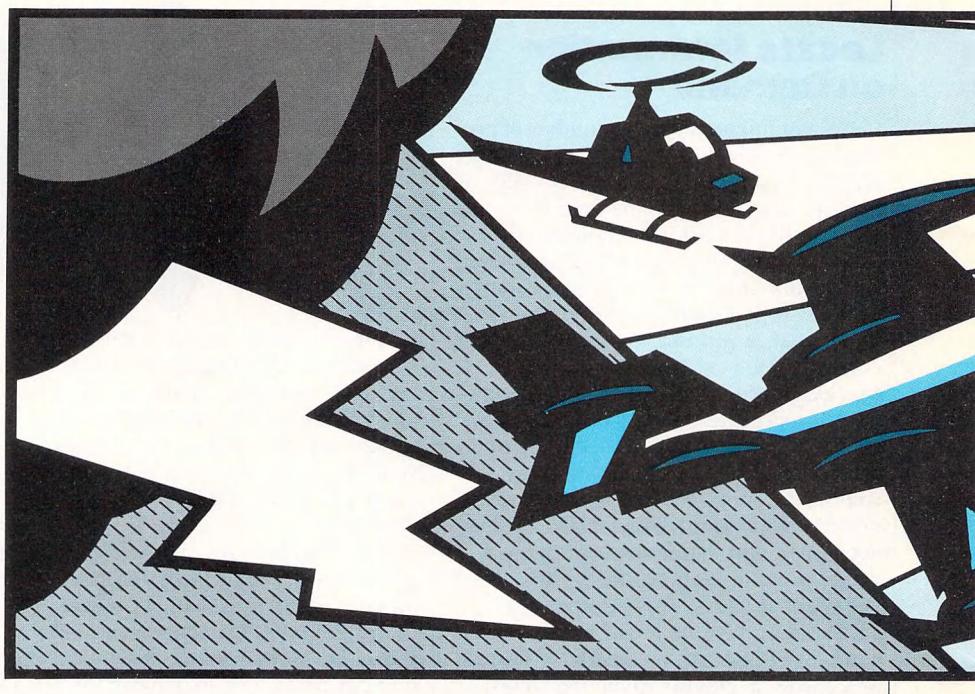
Changing Your Password

The CompuServe Information Service urges its customers to change their password(s) at least once a month.

The password should be at least eight characters comprised of two unrelated words separated by a symbol, for example: HOUSE*MAGNET.

It never hurts to be safe, but almost always hurts to be sorry. By changing your password frequently, you eliminate the risk of someone else illegally using your account.

Aviation Services:
Keeping the Skies Friendly



If you're involved in general aviation, count yourself among those who operate a fleet of 213,000 airplanes, transport 120 million passengers intercity and log nearly 37 billion airplane miles in the United States every year. Commercial airlines don't even come close to these figures.

Those who own or rent aircraft, belong to aviation clubs, fly corporate or community aircraft or operate flight schools often need timely information. The aviation services available on CompuServe provide a variety of databases and forums for the private pilot.

Aviation Weather started as an inexpensive service for pilots, but CompuServe project manager Bob Snider says it has grown into a fairly complete aviation weather service. Three-letter location abbreviations enable users to retrieve current and previous hourly weather reports; terminal, winds aloft and area forecasts; and text radar summaries for the cities they will be passing through. Specialized weather items, such as notices to airmen (NOTAMS), pilot reports (PIREPS) and significant meteorological warnings (SIGMETS and AIRMETS) are included. There is a 25-cent surcharge each time you access the Aviation Weather area.

The Public Weather area, currently under expansion, offers subheadings for state, extended, marine and sports forecasts; forecast explanations; precipitation, probabilities and weather warnings. There is no surcharge for the Public Weather area.

EMI offers flight planning services featuring customized weather briefings. Using the forecast winds aloft, an EMI flight plan will give you accurate time and fuel burn estimates for each leg of a given flight route, as well as navigation frequencies, magnetic course and distance.

The main advantage of an EMI flight plan is that it supplies the reported weather, forecasts, NOTAMS and other information usually received over the phone from an FAA Flight Service Station. You only have to answer a few questions about your airplane's performance (or enter your tail number if you have registered it with EMI) and enter the route and altitude for the flight. Your route can be on federal airways, between VORTAC stations, or even direct, if your airplane is equipped with area navigation.

EMI also supplies visual flight rules (VFR), instrument flight rules (IFR), jet enroute weather briefings alone, quick time and distance checks and a radar map. Many pilots use these along with the Aviation Weather database to plan a tentative route and then print out an EMI flight plan to take the detailed information with them in the cockpit. A "Flight Planning and Aviation Weather Guide" is available from CompuServe for $5.95 by typing GO ORDER and completing an online form.

The Aviation Safety Institute (ASI) provides an online newsletter called Monitor and several other features. The bi-weekly Monitor summarizes recent hazard reports and includes short features on such topics as traffic congestion in the Los Angeles area and what to do if an airline has poor quality food.

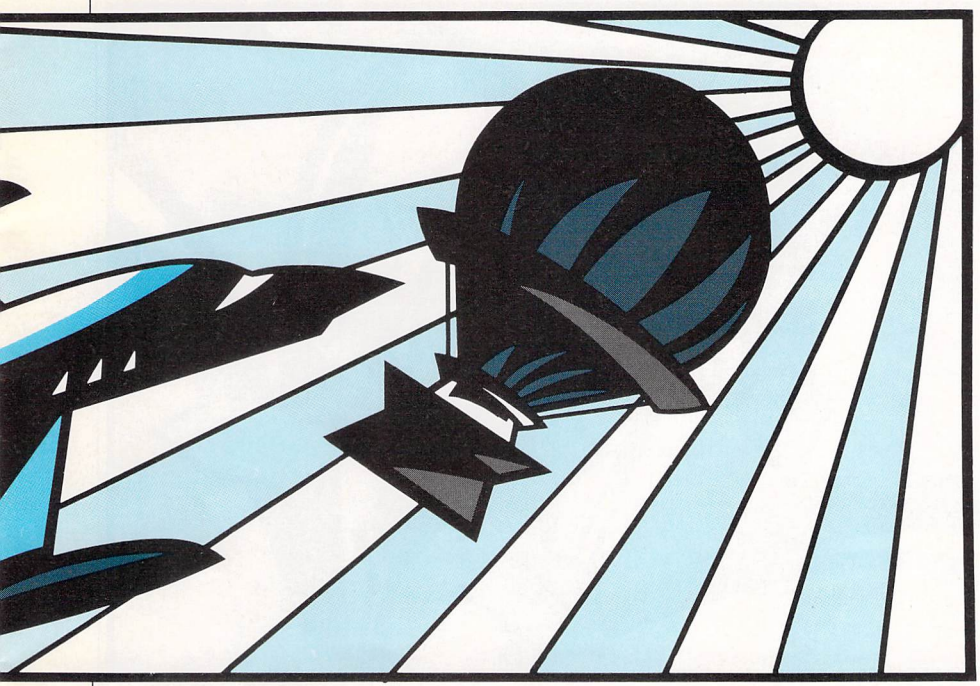
ASI Flight Operations includes longer articles written by ASI's John Galipault and other sources. Service Difficulty Reports, updated weekly, discuss mechanical interruption (failure of any mechanical part of an aircraft) for nearly a dozen different types of aircraft (single engine, helicopter, glider, etc.).

Browse further to Safety Tips or Human Factors. Online Hazard Reporting is an area to report your observed air hazards. Other areas of ASI include Airport Feedback for you to evaluate airport facilities, Aviation Trivia, Aviation Computation Models and an Aviation Contest with prizes for those who think they can calculate where an errant missile will crash.

The Aviation Forum, commonly called AVSIG, began four years ago as an outgrowth of ASI and now has more than 3,000 members. It offers a nine-section data library, several weather programs, conferences on Thursday and Friday evenings, software for downloading and additional safety information. You can also find out how to manage a flying club and — with VIDTEX™ software — retrieve and display radar programs. Pilots, non-pilots, students, retired airline and military pilots, and air traffic controllers frequent the forum, but all CompuServe subscribers with an interest in aviation are welcome.

The Aircraft Owners and Pilots Association (AOPA) has a private forum offering current aircraft news briefings and articles from AOPA publications. The nearly 2,000 AOPA forum members can communicate directly with the AOPA staff. Software is available for downloading, members communicate through a message board and the forum has online conference speakers each month.

As an independent lobbying organization, AOPA tends to concentrate on government affairs, including regulations and "airworthiness directives" (similar to automobile recall notices). To join the



forum, AOPA members should leave a message for forum administrator Mike Stockhausen.

In the Aircraft Insurance Buyer's Guide, attorney Jay White provides a consumer guide, editorial comments and a digest of relevant court cases. **In another product, FAA Rules Changes**, White surveys the Federal Register and focuses on information about operations, medical standards and ADs. He also summarizes National Transportation Safety Board (NTSB) rulings from FAA cases against pilots, mechanics, business operators and anyone else with an FAA certification.

The VIDTEX™ Weather Radar Maps feature a U.S. map outline with local warnings and weather displayed in two levels of intensity. Formerly, these maps were readable on a limited number of computers with VIDTEX software. Now, with a published BASIC program and software from AVSIG, most users are able to set up their computers to capture the map characters and achieve the screen display. To find AVSIG software, type GO AVSIG, enter the data library area and search for this keyword: radar. The Personal Color Radar, a $59.95 software product, goes one step further. After logging on to CompuServe, a user can retrieve radar reports and then plot all the radar observations graphically and sequentially.

To locate the aviation services mentioned in this article, access CompuServe and type the appropriate GO command at any prompt.

— Yvonne H. Burry

AVIATION SERVICES

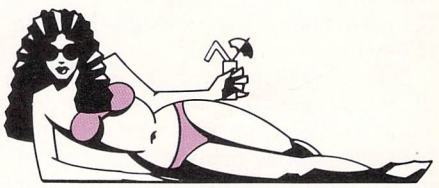
NWS Aviation Weather	**GO AWX**	$.25 entry fee
EMI Flight Planning	**GO EMI**	$.006 per mile for first 750 miles
ASI Services	**GO ASI**	no surcharge
Aviation Forum (AVSIG)	**GO AVSIG**	no surcharge
John Galipault, forum administrator, 76703,402		
AOPA Forum	**GO AOP**	$1 per hour for members
Mike Stockhausen, forum administrator, 72446,2203		
Aircraft Insurance Buyer's Guide	**GO AVL**	no surcharge
FAA Rule Changes/NTSB Cases	**GO AVR**	no surcharge
VIDTEX Weather Radar	**GO AWX-4**	$.50 surcharge for radar maps; no surcharge for other maps

Destinations to Sun and Sand

Sun and Sand, two key ingredients in some of the most memorable vacations, are also key words in a new online "travel office" on CompuServe's Information Service.

Through Sun and Sand Vacations, users can make their own travel arrangements online for three of the most popular vacation areas — Florida, the Caribbean and the Bahamas.

Vacation plans offered by Sun and Sand include everything from low-cost family vacation package specials to a menu where you may customize your own travel package from a list of options, including air transportation to your vacation destination and a rental car upon arrival where appropriate.



In the sections for tours to the Caribbean and the Bahamas, you'll find descriptions of the various islands, the currency and languages used, and the entry requirements of each. Tour destinations in the Caribbean range from Aruba to the Virgin Islands. In the Bahamas section, tours are available for Nassau, Freeport/Lucaya and the Family Islands.

When you've chosen the vacation you want, you'll be able to go to the special online reservations area to book the package. Payment may be made by mail or online with the use of a major credit card. In less than 48 hours after you've made the online reservation, the tour packages you requested will be reserved (subject to availability). Within a few days, your travel documents will arrive through surface mail. There is no surcharge for using the reservation section of the database.

Medallion Tours, provider of the service, has established a top reputation for itself in the last decade with its competitive prices, special tour packages and a 24-hour customer service line to assist with problems and help assure trouble-free vacations.

To access Sun and Sand Vacations, type GO SAS.

— Dave Peyton

What's Inside the Electronic Mall

In the Electronic Mall™ you'll discover that shopping has never been easier. You'll find telescopes, pogo sticks and garden hoses (GO SR). Hyacinths, dutch daffodils and giant crocuses (GO SB). Stock tips (GO EF, GO MU) and European trips (GO AF, GO WL). Software (at The Personal Computer Store) and sportswear (GO BL, GO SR, GO HF). Rock bands (GO RC, GO RW) and watchbands (at Lennox).

To stay in shape this summer, athletes will want to visit a new merchant, Carolina Health & Fitness (GO HF). You'll find dumbbells and sit-up benches. Rowers. Goggles for swimmers and tummy trimmers. Pedometers and massagers. Even a summer survival kit. And fitness fans will find a special "No Pain, No Gain" T-shirt at Just-For-Fun (GO FP).

Take off by land. Rent a car from one of Alamo's coast-to-coast locations. Head for The Homestead (GO HS) perhaps, the Mobile five-star resort nestled in the Alleghanies, and enjoy a weekend of golf, tennis or horseback riding.

Or head for the hills with new camping, hunting and fishing gear from American Outdoorsman (GO AO). While you're roughing it, there's no need to miss your favorite television show. Pick up a VCR (GO AXM, GO SR) before you go. Or better yet, why not get a portable, pocket TV set? (GO AXM). And just in case the fish don't bite, pack a few gourmet delights (GO HH).

Plan a day trip. Pack a picnic basket (GO HH). Hit the beach. Soak up some sun and get your summer reading done (GO BB, GO WB). Or hang a hammock right outside. Keep up with the Jones, Dow of course, (GO DJ), or with virtually any magazine worldwide (GO ME). And for that rainy day or night, remember Magic Castle Video (GO MV) has a wide selection of movies.

Take to the air. Travel near. American Airlines (GO AA) will get you there. Or travel far. How about a little Riverian R&R? (GO AF). Or a bungalow on a far-flung Greecian isle? (GO WL).

Or take to the sea, down under, of course. With the best in scuba gear (GO BS) there's nothing to fear.

Best of all, you can pay for it all with a Gold Mastercard from Colonial National Bank (GO CN).

So enjoy your summer, and remember, The Mall is open 24 hours a day, seven days a week.

AUTO SHOP

BU Buick

BOOK BAZAAR

WB Waldenbooks
RP Rodale Press
MH McGraw-Hill
BB Bantam Books

FINANCIAL MART

MET Metropolitan Life
CN Colonial National Bank
MU Max Ule & Co.
SI Select Info. Exchange
EL Equitable Life

LEISURE CENTER

MV Magic Castle Video
AO American Outdoorsman
SB Stark Brothers Nursery
BS Berry Scuba Co.
HF Carolina Health/Fitness

MERCHANDISE MART

KO Eastman Kodak Co.
SR Sears, Roebuck & Co.
AC Landmark Contracts

NEWSSTAND

ME EBSCO Magazine Entree
CBS CBS Magazines
CW CW Communications
DJ Dow Jones & Co.
US USA Today
RP Rodale Press

ONLINE CONNECTION

EF E.F. Hutton
VL VideoLog Electronics
NN NewsNet
HB Harvard Business Review
BA Bank of America
OA Official Airline Guides

PERSONAL COMPUTER STORE

MO Misco Computer Supplies
SR Sears, Roebuck & Co.
MC MCTEL Telecommunications
CS Commodore Business Machines
MM Marymac Industries Inc.
MS Microsoft
HTH The Heath Corp.
CE Computer Express
BI Borland International
GE Grolier Software

RECORD EMPORIUM

RW Record World
RC RCA Record Clubs

SPECIALITY BOUTIQUE

BL Bloomingdale's by Mail
HH Hobbit Hole/Wyandotte Wines
VM VitaMenagerie
AXM American Express Shopping

TRAVEL AGENCY

AF Air France
AA American Airlines
WL Worldwide Exchange
HS The Homestead

Agent Orange feature in Vets' Services

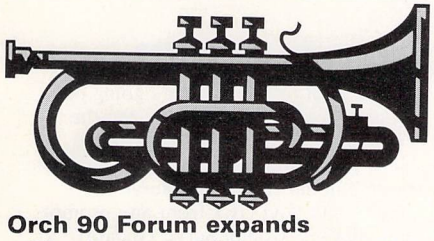
The Military Veterans' Services area on CompuServe has added a link to the Centers for Disease Control for questions about the Agent Orange study. Concern about the use of this chemical and its affect on the health of Vietnam veterans has prompted a nationwide survey. The CDC will answer questions about the survey in Vets Line, a special Feedback area. GO VET.

Online Computer Connection opens forum

The Online Computer Connection, a syndicated radio series, is heard on stations in the nation's top 100 markets. It is provided by CompuServe and Jameson Broadcast Inc. A corresponding forum on CompuServe is also available.

Each daily radio program includes four to six short segments of information about computer-related topics. Top computer publication writers, reviewers and columnists, as well as other computer industry experts, are featured in the series.

CompuServe subscribers can ask questions of the show's participants, request detailed information about radio segments and suggest topics for future programs by participating in the Online Computer Connection Forum. GO OCC.



Orch 90 Forum expands

The Orchestra-90 Forum now supports all types of computer-generated music. In addition to separate sections for Apple, Commodore, Atari and IBM users, there are sections for systems using the MIDI and the new MSX music protocol. About 1,000 files are available for downloading. GO PCS-15.

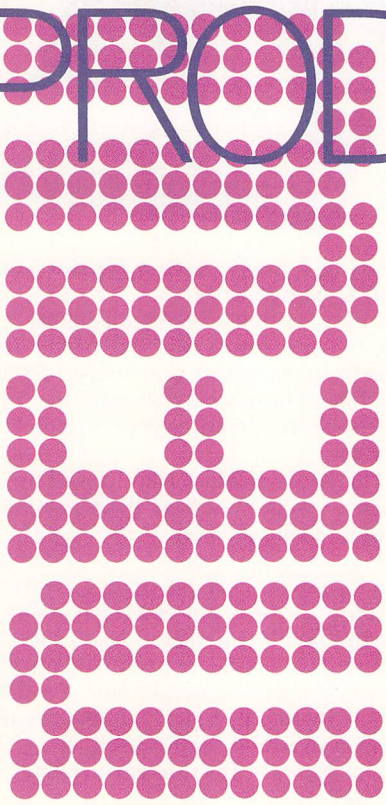
Ordering items made easier

Reading product descriptions and placing orders for CompuServe products is now easier. And you can check the status of an order to see when it is mailed. Your connect time is still free while ordering; you are billed only for the communications surcharges. You'll find these improvements and more in the Ordering Section of User Information. GO ORDER.

PaperChase program for medical professionals

PaperChase is a computer program allowing medical professionals without computer experience to search bio medical literature. Developed by physicians for physicians and other health care personnel, it is available 24 hours a day, seven days a week. Users have quick, easy access to more than 2 million medical references. GO PCH.

PRODUCTS

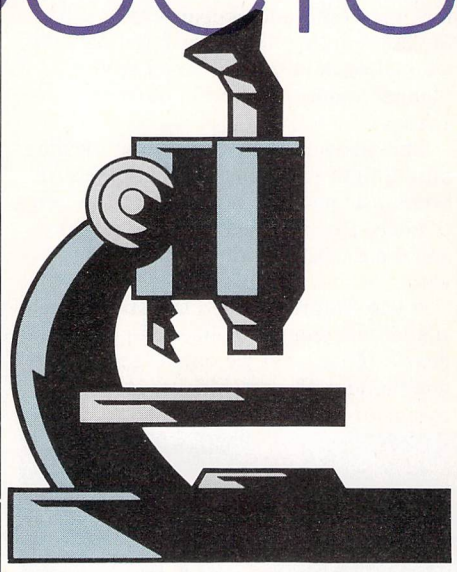


New investment, commodity data

Historical cash settlement prices for many commodities are available on CompuServe. Among these commodities are indices, foreign currencies, metals, petroleum products and agricultural products. These prices will assist the commodities speculator, the manufacturing commodities user and the farming commodities producer. GO FIN-13.

Electronic Gourmet has new forum

The Gourmet Club, a new forum introduced by the Electronic Gourmet, features a favorite recipe exchange, cooking tips, product information, restaurant reviews and more. GO GOURMET.



Teachers visit Science Ed Forum

Every Thursday evening, the Science Education Forum has a science teacher online in the conference area. The teachers field questions about chemistry, biology, physics or general science. They also provide suggestions for science fair projects and answer questions about majoring in science-related areas in college. The Thursday evening conference session is for science students and parents of children taking elementary or secondary school science courses. GO EDU-13 or HOM-160.

Update-d Gift of Time

Online Today offers subscribers the chance to write a 200-word essay on how they use CompuServe's Information Services.

Your essay should be typed double-spaced. Send it to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or by an Email message to 70003,1661. Please include your full name, address and User ID number.

Should we use your column, you will receive 10 hours of standard service connect time (a $60 value) and a by-line.

Lawyers discover CompuServe

At our recent Western Public Interest Law Conference for 200 lawyers, law students and citizens in Eugene, Ore., we had been promised a demonstration of telecomputing for lawyers by one of the big computer manufacturers. But the company cancelled out on the day before the conference because of a schedule conflict. We felt devastated because we had prominently announced the planned demonstration in our brochures.

This gnawed at my mind that evening until a light went on: CompuServe! At breakfast, just one hour before the conference, I nabbed another law professor and we dashed for our computer hardware.

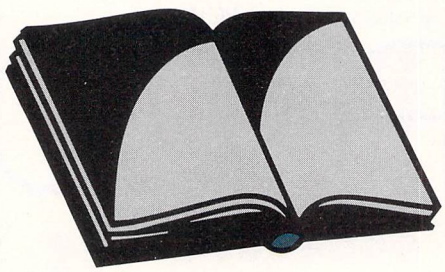
It was Saturday, but a law student persuaded the campus police to open up the dean's office, and we converged on the telephone with screwdriver, modem, extension cords and computer.

Within 45 minutes, we had all the lawyer-to-lawyer messages from CompuServe's Legal Forum scrolling "live" across a computer screen near the registration table. A large sign on computer paper announced:

"*This computer is hooked to a mainframe computer in Columbus, Ohio, run by CompuServe, and is displaying messages from one lawyer to another across the United States.*"

To lawyers who had never heard of bulletin boards or computer-to-computer messaging, the display was an eye-opener. We received numerous inquiries during the conference about computers for lawyers, telecomputing and CompuServe.

John E. Bonine
School of Law
Eugene, Ore.



Writing a book with a Model 100 and CompuServe

I have written a book. All 30,000 words were written on a TRS Model 100, which, as you know, is a wonderful little machine, but has only an eight-line by 40-character screen, and very limited storage.

The book, called "The Strait Way Home," would not have been possible without CompuServe.

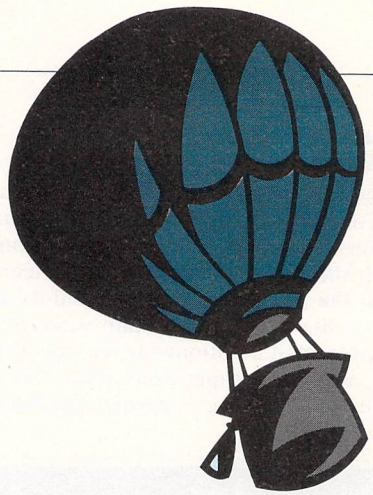
It was my personal story of a sailboat trip from New Zealand, across the Pacific, through the Strait of Magellan and around South America to New York.

I used CompuServe to store in my personal file each chapter, or part of a chapter, as I wrote it. Later, I'd download it, work it over and send it back to CompuServe. I rewrote each chapter several times.

Without my personal file on CompuServe (costing me nothing except connect time) I would have never produced 30,000 words on an 8-by-40 screen.

The personal file area of CompuServe is a great asset to a writer, certainly to one with a Model 100.

James E. Alexander
Pittsburgh, Pa.



CompuServe helps launch balloon

It's about 5 o'clock on a Saturday morning as I power up my personal computer to do a weather check. Using CompuServe before I go flying, I check all pertinent aviation weather. The reason I don't do it in person as most pilots do is that I never go to an airport.

I fly a hot air balloon, and as a pilot, it is required by law that I gather all necessary weather and flight information prior to my flight. Using the Aviation Weather service on CompuServe, I browse through all the Flight Service Station (FSS) reports from my area, check the winds aloft forecast and look up the public National Weather Service forecasts for the region.

With this background data, I then call the local FSS for any recent updates or changes that may have occurred. It looks like this Saturday is a perfect flying day.

We lay the balloon out, start the inflator fan, fire up the burners and the balloon is ready to go. The crew stows the gear, the passengers hop in, and we are off on another beautiful flight, skimming the trees and Minnesota countryside.

Keith Dahlgren
Rochester, Minn.

What's Going On???

If you want to know what's going on around CompuServe, check into the *Electronic Edition* of *Online Today*. Here you'll find constantly revised news for and about the CompuServe community. GO OLT from any prompt and choose "CompuServe Update" from the main menu.

ONLINE TODAY
ELECTRONIC EDITION

HIGHLIGHTS

BRIEF DESCRIPTIONS OF MANY SERVICES AVAILABLE ON THE COMPUSERVE INFORMATION SERVICE INCLUDING A COMPLETE SUBJECT INDEX.

COMMANDS

Contained in this volume of Highlights is Information/current as of May, 1985

Highlights, published by Online Today magazine, is your handy digest of CompuServe Information Service products and services.

Highlights contains the complete CompuServe Information Service subject index, including the "GO" page locations to find online items easily.

Also included are brief descriptions of many subjects and services available on CompuServe. Different subject items and services will be featured in each issue, so we suggest you keep successive issues of Highlights as handy references.

The following is a list of commands for using the CompuServe Information Service. Simply type the letter or letters preceding the definitions shown here and then press the ⟨ENTER⟩ or CARRIAGE RETURN key.

B — BACKWARD
this command will back you up and redisplay the page preceding the one you are reading.

F — FORWARD
this will take you FORWARD one page. It displays the next page in a series of pages. Pressing the ⟨ENTER⟩ or CARRIAGE RETURN key once will also display the next screen of information.

G — GO
the GO command will take you directly to a page specified by an information provider code and page number, for example, GO TRS-1. By typing GO, and the information provider code (no page number), you will be taken to the first page of the information provider area.

H — HELP
you will receive instructions after typing in HELP and pressing the ⟨ENTER⟩ or CARRIAGE RETURN key.

M — MENU
this means previous MENU. This command will take you to the menu page which directed you to the page you are currently reading.

N — NEXT
this command will take you to the NEXT topic listed on the menu on which you made your current topic choice. If you chose topic 5 on the most recent menu, then NEXT will display topic 6.

OFF
this command will disconnect you from CompuServe immediately after it is typed in and followed by an ⟨ENTER⟩ or CARRIAGE RETURN.

P — PREVIOUS
this command will take you to the PREVIOUS topic listed on the menu located before the one you chose to read. If you chose topic 5 on the most recent menu, then PREVIOUS will display topic 4.

S — SCROLL
this command will allow you to continuously print pages to your screen until the last page in a series is displayed. If you are at a menu page, typing S followed by the number which corresponds with the menu topic, will continuously print the pages related to that topic to your screen.

T — TOP
the TOP menu page. This takes you directly to the first page of the CompuServe database (CIS-1).

USER INFORMATION

The User Information main menu item contains information which is of interest to all customers. Some of the User Information items are:

Billing: Your Charges, Rates Options, Making Changes
provides you with information about your current and past charges for purchases and services used, displays the current rates for using the CompuServe Information Service, and allows you to change the existing information about your current credit card, or to enter another credit card choice.
GO BIL-1

Change Terminal Settings
shows you how to specify terminal type, length of line, width of line, point of entry at log on, EasyPlex waiting notice at log on, etc. You can make the default settings permanent or temporary to that session.
GO CIS-4

Change Your Password
prompts you for your current password and then asks for your new choice of password. You are immediately notified when the password is changed successfully.
GO CIS-4

Command Summary and Usage Tips
displays a brief description of the commands which can be used in the Videotex area.
GO CIS-4

Electronic Bounce Back
makes it easy for you to request free information from advertisers in *Online Today* magazine. Insert your name, address and names of any advertisers from whom you'd like information.
GO EBB

HIGHLIGHTS

Feedback to CompuServe
briefly describes how to use the Feedback service and then allows you to send comments, suggestions or questions to the Customer Service staff, etc. Your Feedback is read and responded to via EasyPlex to the same User ID which entered the message. Feedback responses are usually made within 48 hours after receipt by Customer Service. Your connect time is free while using this service, in the form of a credit given for the time you use Feedback. It is recommended that you use Feedback to communicate with the CompuServe Information Service.
GO CIS-4

Log on Instructions & Numbers
searches and displays the most up-to-date list of telephone access numbers by the state or area code you select. Pending and recent changes are available as well as a complete list by baud rate.
GO CIS-4

Online Today Electronic Edition
an electronic extension of *Online Today* magazine. Contains daily-updated computer and videotex industry news; reviews of hardware, software and books; new product announcements; and a direct link to *Online Today* advertisers.
GO OLT

What's New
presents the new and enhanced features available from the CompuServe Information Service.
GO NEW, CIS-4

Subject Index
displays the entire Subject Index or searches and displays features by key word entry. It also lists the IP code/page reference for each item so you can use the G (GO) command to directly access the item of your choice.
GO IND-1

SUBJECT INDEX

The CompuServe Consumer and Executive Information Services subject index is updated constantly. For the most recent list of subjects and services, type GO IND.

Key services and exclusive capabilities that are accessible through the CompuServe Executive Information Service are highlighted with a Ⓔ.

This subject index is current as of July 1, 1985.

A

AAMSI Communications . GO AAM
AAMSI Communications Ⓔ GO PF-30
AAMSI Medical Forum Ⓔ. GO PF-30
AAMSI SIG . . . . . GO SFP-5
ADCIS Forum . . . . . GO EDU-7
AOPA Forum. . . . . GO AOP
AP Datastream . . . . . GO SPD-1005
AP Datastream Ⓔ . . . . . GO TWP
AP Videotex, Business . . . . GO APV
AP Videotex, Entertainment . . . . GO APV
AP Videotex, Politics . . . . . GO APV
AP Videotex, Weather . . . . . GO APV
AP Videotex, World News . GO APV
ASCMD Forum Ⓔ . . . . . GO PF-30
ASI Flight Operations . . . GO ASI-11
ASI Monitor . . . . . GO ASI-10
ASI Service Difficulty. . . . GO ASI-12
Academic Amer. Ency . . . . . GO AAE
Access Phone Numbers GO LOG-50
Access Phone Numbers Ⓔ GO GUI-30
Adult Education:
The College Board . . . . . GO TCB
Adventure . . . . . GO GAM-8
Advertisers, Online Today:
Electronic Bounce Back. . . . . GO EBB
Advertising:
National Bulletin Board Ⓔ GO BULLET
The Electronic Mall. . . . . GO EM
Advice:
Government Publications. . . . GO GPO
Human Sexuality . . . . . GO HSX
Advisories, Travel:
Department of State. . . . . GO DOS
Agri-Commodities. . . . . GO ACI
Aircraft Insurance . . . . . GO AVL
Altertext Report . . . . . GO ALT
Annual Reports:
DISCLOSURE II Ⓔ . . . . . GO IQ-560
Standard & Poor's. . . . . GO FIN-20
Standard & Poor's Ⓔ . . . . . GO IQ-500
Value Line Financials . . . . . GO FIN-20
Value Line Financials Ⓔ. . . GO IQ-500
Apple User Group SIG . GO PCS-51
Art, The World of . . . . . GO ART
Ask Mr. Fed Forum Ⓔ . GO MMS-20
Astrology. . . . . GO GAM-45
Astronomy:
Naked Eye Astronomy . . . . . GO NIA
Atari SIG . . . . . GO PCS-132
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TravelVision. . . . . GO TRV
Attorneys:
Legal Forum . . . . . GO SFP-40
Autos, Buying:
New Car Showroom. . . . . GO ATO
StL Post-Disp., Autos. . . . . GO SPD
Aviation:
ASI Flight Operations . . . . . GO ASI-11
ASI Monitor . . . . . GO ASI-10
ASI Service Difficulty . . . . . GO ASI-12
EMI Flight Planning . . . . . GO EMI
NWS Aviation Weather . . . . . GO AWX
Aviation Forum Ⓔ. . . . . GO PF-10
Aviation Rules & Reg. . . . . GO AVR
Aviation SIG (AVSIG). . . . . GO SFP-6
Aviation Safety Institute. . . . GO ASI
Aviation Weather . . . . . GO AWX

B

Backgammon . . . . . GO GAM-31
Baffle Word Game . . . GO GAM-526
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Banking Services Ⓔ . . . . . GO BAN
Banks:
Huntington National Bank . . . GO HNB
Shawmut Bank of Boston . . . GO SHW
Shawmut Bank Boston Ⓔ GO BAN-30
United American Bank. GO HOM-152
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Max Ule's Tickerscreen . . . . . GO TKR
Rapaport Diamond Broker . . . GO RDC
Unified Management . . . . . GO UMC
Bulletin Board, National . . . . . GO BULLET
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AP Videotex, Business. . . . . GO APV
CP Business Info Wire. . . . . GO BIW
The Business Wire . . . . . GO TBW
Business News:
StL Post-Disp., Business . . . . GO SPD
Wash. Post, Business . . . GO TWP-12

C

CB Interest Group SIG . GO HOM-9
CB Society . . . . . GO CUP
CEMSIG SIG . . . . . GO PCS-54
CP Business Info Wire. . . . . GO BIW
CP/M Users Group SIG . GO PCS-47
CREATIVE COMPUTING . . . GO CRE
Calculate A Raise . . . . . GO HOM-15
Calculate Net Worth . . GO HOM-16
Canadian News:
CP Business Info Wire. . . . . GO BIW
Cars:
Auto Racing Forum. . . . . GO RIS
New Car Showroom. . . . . GO ATO
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Changing Password Ⓔ .GO GUI-120
Changing Terminal Type . . GO CIS-9
Changing Terminal Type Ⓔ GO GUI-40
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Monthly Charges Ⓔ . . . . . GO GUI-110
Checkbook Balancer . . GO HOM-14
Children's Games . . . . . GO TMC-27
Citizen's Band Simulator .GO CB-10
Civil War . . . . . GO GAM-14
Classic Quotes. . . . . GO TMC-7
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StL Post-Disp., Classified . . . GO SPD
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Communications Ind. Ⓔ . . . GO DPR
Comp-U-Store . . . . . GO CUS
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Value Line Projections . . . . GO FIN-18
Value Line Projections Ⓔ . GO IQ-600
Comparison Shopping, Autos:
New Car Showroom. . . . . GO ATO
CompuServe Account Balance:
Monthly Charges. . . . . GO MON
Monthly Charges Ⓔ . . . . . GO GUI-110
CompuServe Rates. . . . . GO BIL
CompuServe Rates Ⓔ . GO GUI-100
CompuServe Logon Instruct . . . . GO LOG
CompuServe's Softex . . GO PCS-40
Computer Art SIG. . . . . GO PCS-157
Computer Industry News:
Direct Connection, The . . . . . GO TDC
Computer Job Bank. . . . . GO TDC-4
Computer Lang. Magazine. GO CLM
Computer Resume Bank. GO TDC-4
Computer Wire, The. . . . . GO TDC-4
Computers & Electronics SIG:
CEMSIG SIG . . . . . GO PCS-54
Computing Across America. . . . . GO CAA
Computing Tutorials . . GO PCS-121
Concentration . . . . . GO GAM-32
Cooking:
Electronic Gourmet. . . . . GO HMS
Cupcake's Column:
CB Society . . . . . GO CUP
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D

DEFALT Parameters:
Changing Terminal Type . . . . GO CIS-9
Changing Terminal Type Ⓔ GO GUI-40
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DataPac Logon Instruct .GO LOG-41
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Product Ordering. . . . . GO CIS-54
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Donoghue Organization . . .GO DON
Dor Sageth . . . . . GO GAM-527
Download Pricing Data Ⓔ GO IQ-418
Download Value Line Ⓔ . GO IQ-540

E

EMI Flight Planning . . . . . GO EMI
EPIE Database . . . . . GO EPI
EPIE Forum . . . . . GO EDU-8
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EPIE Database. . . . . GO EPI
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Edutech Project Pilot . . . . . GO CAI
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TELE Forum . . . . . GO EDU-11
TELECUE Forum . . . . . GO EDU-12
The Multiple Choice . . . . . GO TMC
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Educ. Research Forum. . . GO EDU-1
Educators Forum. . . . . GO EDU-4
Edutech . . . . . GO CAI
Edutech Project Pilot . . . . . GO CAI
Electronic Bounce Back . . . GO EBB
Electronic Gourmet . . . . . GO HMS
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Computer Resume Bank. . . GO TDC-4
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StL Post-Disp., Jobs. . . . . GO SPD

HIGHLIGHTS

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Entertainment:
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Hollywood Hotline..... GO HHL
Movie Reviewettes..... GO NMM
Primetime Radio Classics ... GO PRC
RockNet ..... GO ROK
SHO-TIME Movie Catalog ...GO MOV
SHOWBIZQUIZ ..... GO SBQ
The National Satirist.....GO KCS
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Entertainment News:
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F

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Fedwatch Newsletter .... GO MMS
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Feedback to CompuServe Ⓔ GO FEED
Fifth Avenue Shopper ..... GO FTH
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EMI Flight Planning .....GO EMI
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MMS/Daily Comment Ⓔ ..... GO DC
MMS/Fedwatch Ⓔ ..... GO FW
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NOAA Weather Wire .....GO WEA
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AAMSI SIG.....GO AAMSI
ADCIS Forum..... GO ADCIS
Aopa Forum ..... GO AOP
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Auto Racing Forum..... GO RIS
Aviation SIG (AVSIG).....GO AVSIG
CB Interest Group SIG.... GO CBSIG
CEMSIG SIG .....GO CEMSIG
CP/M Users Group SIG ..GO CPMSIG
CREATIVE COMPUTING .... GO CRE
Color Computer SIG..... GO COCO
Commodore 64 SIG..... GO C64SIG
Commodore Prog. SIG.. GO CBMSIG
Comm. VIC20&Pet/CBM .GO PCS-155
Communications Ind ..... GO SFP-30
Communications Ind. Ⓔ .... GO DPR
Computer Art SIG.....GO PCS-157
Digital Research Forum...GO PCS-13
EPIE Forum ..... GO EPIE FORUM
Educ. Research Forum...GO HOM-28
Educators' Forum ..... GO HOM-137
Environmental Forum..... GO SFP-38
EpsOnLine .....GO PCS-19
Fire Fighters' Forum..... GO SFP-36
Game SIG.....GO GAM-310
Good Earth Forum .... GO HOM-145
HamNet Forum .....GO HOM-11
Heath User Group SIG....GO HEATH
High-Tech Forum ..... GO CCC-150
Human Sexuality.....GO HSX-18
IBM PC SIG ..... GO IBMSIG
Kaypro Users Forum.....GO PCS-25
Legal Forum .....GO LAWSIG
Literary Forum ..... GO HOM-136
Logicial Systems Inc SIG..GO PCS-49
MUSUS SIG.....GO PCS-55
MicroPro Forum .....GO PCS-29
Microsoft SIG..... GO MSOFT
Military Veterans Services....GO VET
Miner's Underground..... GO SFP-44
Multi-Player GameSIG ..GO GAM-300
Music Forum ..... GO HOM-150
NSBA Forum ..... GO EDU-9
NSPRA Forum ..... GO EDU-10
National Issues Forum. GO HOM-132
OP-NET SIG .....GO OPNET
OS9 SIG .....GO PCS-18
Ohio Scientific SIG .....GO PCS-125
Orch-90 SIG .....GO PCS-15
Outdoor Forum .....GO HOM-38
PDP-11 .....GO PCS-53
PR and Marketing Forum . GO SFP-48
Panasonic SIG .....GO PCS-114
Pascal SIG .....GO PCS-55
Political Forum.....GO HOM-41
PowerSoft's XTRA-80 .....GO PCS-56
Programmer's SIG .....GO PCS-158
RCA SIG .....GO PCS-57
Religion Forum .....GO HOM-33
RockNet ..... GO ROK
Science Educ. Forum ...GO SCIENCE
SCI-FI Forum .....GO HOM-29
Ski Forum .....GO HOM-36
Space SIG..... GO HOM-127
Sports Forum..... GO HOM-110
TRS-80 Prof. Forum .....GO PCS-21
TRS-80 Model 100 SIG .GO M100SIG
Tele Forum ..... GO TELEFORUM
TeleComm SIG.....GO PCS-52
TeleCue Forum .....GO TELECUE
Texas Instruments Forum .GO PCS-27
Travel SIG ..... GO HOM-157
VAX SIG .....GO PCS-16
Whole Earth Software SIG ..GO WEC
WITSIG .....GO HOM-12
Work-at-Home Forum.. GO HOM-146
The World of Lotus.....GO LOTUS
Writers and Editors SIG..GO PCS-117
Fur Trader ..... GO GAM-36

G

Game SIG ..... GO GAM-310
GameSIG Archives.....GO GSA
Games:
Adventure.....GO GAM-8
Astrology .....GO GAM-45
Backgammon.....GO GAM-31
Baffle Word Game .....GO GAM-526
Banshi.....GO GAM-30
Biorhythms.....GO GAM-29
Blackjack.....GO GAM-60
Bridge .....GO GAM-18
Children's Games .....GO TMC-27
Civil War .....GO GAM-14
Classic Quotes .....GO TMC-7
Concentration .....GO GAM-32
Dice .....GO GAM-33
Dor Sageth.....GO GAM-527
Fantasy .....GO GAM-16
FasterMind.....GO GAM-17
Flying Buffalo.....GO GAM-41
Football .....GO GAM-27
Fur Trader .....GO GAM-36
Golf .....GO GAM-21
Gomoku .....GO GAM-22
Hammurabi.....GO GAM-37
Hangman .....GO GAM-23
Kesmai .....GO GAM-46
Lunar Lander .....GO GAM-24
Magic Cube Solution ....GO GAM-35
Maze .....GO GAM-38
MegaWars I .....GO GAM-209
MegaWars II.....GO GAM-305
MegaWars III .....GO GAM-105
Mugwump .....GO GAM-39
New Adventure .....GO GAM-59
Reversi .....GO GAM-40
Roulette .....GO GAM-42
Scott Adams' Games ....GO GAM-28
Scramble.....GO GAM-43
SeaWar .....GO GAM-57
Showbiz Quiz..... GO SBQ
Space Trek .....GO GAM-26
Space War .....GO GAM-25
State Capital Quiz ..... GO TMC-44
Trivia Test .....GO TMC
Wumpus.....GO GAM-44
Golf..... GO GAM-21
Golf, Official PGA Guide... GO PGA
Gomoku..... GO GAM-22
Good Earth Forum ... GO HOM-145
Government Publications..GO GPO
Graphics:
Color Graphics..... GO CIS-91
Green Sheets:
Standard & Poor's..... GO FIN-20
Standard & Poor's Ⓔ ..... GO IQ-500
Guides:
Incorporating Guide .....GO INC
Pan Am Travel Guide ..... GO PAN
Product Ordering..... GO CIS-54
Product Ordering Ⓔ ..... GO GUI-70

H

H. Caines Mystery Magazine ...GO HTC
HamNet Forum ..... GO HOM-11
Hammurabi..... GO GAM-37
Hand. Users' Database ....GO HUD
Hangman..... GO GAM-23
Healthcom..... GO HCM
HealthNet .....GO HNT
Heath User Group SIG . GO PCS-48
Help:
Command Summary ..... GO CIS-58
Hewlett-Packard ..... GO PCS-28
High-Tech Forum ..... GO CCC-150
Historical Pricing Ⓔ ..... GO IQ-400
Hollywood Hotline ..... GO HHL
Home Management:
Calculate A Raise .....GO HOM-15
Calculate Net Worth.....GO HOM-16
Checkbook Balancer.....GO HOM-14
Home Management.....GO HOM-80
Loan Amortization.....GO HOM-17
Home Shopping:
Comp-U-Store ..... GO CUS
Fifth Avenue Shopper.....GO FTH
MicroShoppe .....GO MCS
Primetime Radio Classics ... GO PRC
SAVINGS-SCAN.....GO SAV
The Electronic Mall..... GO EM
Hotline:
Commodore.....GO CBM
HUG:
Heath User Group SIG....GO PCS-48
Human Sexuality..... GO HSX
Humor:
The National Satirist.....GO KCS
WITSIG .....GO HOM-12
Huntington National Bank.GO HNB

I

IBM PC Forum Ⓔ ..... GO PF-40
IBM PC SIG..... GO PCS-131
IIAA.....GO INS
INTEREX Ⓔ..... GO PCS-28
Incorporating Guide.....GO INC
Index.....GO IND
Index Oscillators:
News-A-Tron .....GO NAT
Indices:
Current Day Quotes Ⓔ ... GO IQ-300
Industrial Hygiene Forum..... GO SFP-47
Ind. Standard Databases .GO TDC-4
InfoText..... GO IFT
InfoWorld.....GO INF
Information On Demand....GO IOD
Insurance, Aircraft:
Aircraft Insurance .....GO AVL
Insurance, Home-Auto:
IIAA .....GO INS
Intelligence Test .....GO TMC-32
Internal Revenue Services ..GO IRS
Investments:
Commodities ..... GO FIN-16
Commodities Ⓔ ..... GO IQ-400
Current Day Quotes Ⓔ ... GO IQ-300
Donoghue Organization .....GO DON
Exp. Inv./MicroQuote II Ⓔ. GO IQ-200
Historical Pricing Ⓔ ..... GO IQ-400
Max Ule's Tickerscreen .....GO TKR
MicroQuote ..... GO FIN-4
MicroQuote Ⓔ..... GO IQ-200
Portfolio Valuation Ⓔ ..... GO IQ-700
Quick Quote..... GO FIN-20
Ticker Retrieval Ⓔ..... GO IQ-100
World-Wide Investment Sys GO WIS-1
Investors Forum Ⓔ..... GO PF-70
Issues, Legal:
Legal Forum Ⓔ ..... GO PF-20

K

Kaypro Users Forum ... GO PCS-25
Kesmai..... GO GAM-46

L

Legal:
Incorporating Guide .....GO INC
Legal Forum Ⓔ ..... GO PF-20
Legal Forum .....GO SFP-40
Literary Forum..... GO HOM-136
Loan Amortization .... GO HOM-17
Logging On:
CompuServe Logon Instruct. GO LOG
DataPac Logon Instruct .. GO LOG-41
TYMNET Logon Instruct . GO LOG-11
Telenet Logon Instruct... GO LOG-20
Logicial Systems Inc SIGGO PCS-49
Lunar Lander ..... GO GAM-24

M

MAUG:
Apple User Group SIG ....GO PCS-51
MMS/Daily Comment Ⓔ.... GO DC
MMS/Fedwatch Ⓔ ..... GO FW
MUSUS SIG ..... GO PCS-55
Magazines:
Altertext .....GO ALT
Antic .....GO ANTIC
Computer Language.....GO CLM
CREATIVE COMPUTING .... GO CRE
Family Computing..... GO FAM
Online Today .....GO OLT
The Direct Connection..... GO TDC
Magic Cube Solution.. GO GAM-35
Manuals:
Product Ordering..... GO CIS-54
Product Ordering Ⓔ ..... GO GUI-70
Max Ule's Tickerscreen.... GO TKR
Maze..... GO GAM-38
Meal Planning:
Electronic Gourmet.....GO HMS
Medical:
AAMSI Communications ....GO AAM
AAMSI Communications Ⓔ .GO PF-30
FOI Newsline - FDA Info ..... GO FOI
Healthcom .....GO HCM
HealthNet..... GO HNT
Micro-MD ..... GO MDN
PaperChase ..... GO PCH
MegaWars I..... GO GAM-209
MegaWars II..... GO GAM-305
MegaWars III..... GO GAM-105
Micro-MD ..... GO MDN
MicroQuote.....GO FIN-4
MicroQuote Ⓔ ..... GO IQ-200
MicroShoppe .....GO MCS
Microcomputers:
Tandy Newsletter .....GO TRS
Microsoft SIG..... GO PCS-145
Military Veterans Services. GO VET
Mine-Equip ..... GO MIN-100
Miner's Underground ...GO SFP-44
Money Market:
Unified Management .....GO UMC
Money Market Services .. GO MMS
Monthly Charges ..... GO MON
Monthly Charges Ⓔ... GO GUI-110
Movie Catalog:
SHO-TIME Movie Catalog ...GO MOV
Movie Reviewettes.....GO NMM
Mugwump ..... GO GAM-39

HIGHLIGHTS

Multi-Player GameSIG.....GO GAM-300
Multi-Player Games:
MegaWars I.....GO GAM-209
MegaWars III.....GO GAM-105
SeaWar.....GO GAM-57
Space War.....GO GAM-25
Music Forum ..... GO HOM-150

N

NOAA Weather Wire ..... GO WEA
NSBA Forum ..... GO EDU-9
NSPRA Forum ..... GO EDU-10
NTSB Cases:
Aviation Rules & Reg.....GO AVR
NWS Aviation Weather... GO AWX
Naked Eye Astromony .....GO NIA
Narrow-Gage Scout.....GO LMC
National Bulletin Board GO BULLET
National Bulletin Board ⓔGO BULLET
National Issues Forum .....GO HOM-132
National Satirist, The ..... GO KCS
National Water Well Assoc .....GO WWA
New Adventure ..... GO GAM-59
New Services:
What's New.....GO NEW
New Tech Times, The ..... GO NTT
News:
AP Datastream ..... GO SPD-1005
AP Datastream ⓔ.....GO TWP
AP Videotex, Business..... GO APV
AP Videotex, Entertainment . GO APV
AP Videotex, Politics ..... GO APV
AP Videotex, Weather ..... GO APV
AP Videotex, World News... GO APV
CP Business Info Wire..... GO BIW
College Press Service ..... GO CPS
Government Publications.... GO GPO
Hollywood Hotline..... GO HHL
Online Today .....GO OLT
Sports News .....GO SPORTS
The Business Wire.....GO TBW
News-A-Tron ..... GO NAT
Newsletters:
AAMSI Communications....GO AAM
AAMSI Communications ⓔ .GO PF-30
Altertext Report.....GO ALT
Commodore.....GO CBM
Computer Wire, The.....GO TDC-4
Digital Research Inc.....GO DRI
Direct Connection, The ..... GO TDC
Fedwatch Newsletter..... GO MMS
Fedwatch Newsletter ⓔ ..GO MMS-6
Ind. Standard Databases...GO TDC-4
Tandy Newsletter .....GO TRS
Newspapers ..... GO HOM-10
StL Post-Disp., Business.... GO SPD
Wash. Post, Editorials ..... GO TWP
NIPSIG:
National Issues Forum. GO HOM-132
Node Abbreviations.... GO LOG-51

O

OP-NET SIG .....GO SFP-50
OS9 SIG..... GO PCS-18
OSI (SIG):
Ohio Scientific SIG .....GO PCS-125
Official Airline Guides .....GO OAG
Ohio Scientific SIG.... GO PCS-125
Olympic Scoreboard ..... GO OLY
Online Index:
Index .....GO IND
Online Today .....GO OLT
Orch-90 SIG ..... GO PCS-15
Outdoor Forum ..... GO HOM-38

P

PDP-11 ..... GO PCS-53
PGA Official Tour Guide ...GO PGA
PR and Marketing ForumGO SFP-48
PUG:
Panasonic SIG .....GO PCS-114
Pan Am Travel Guide..... GO PAN
PaperChase..... GO PCH
Pascal:
MUSUS SIG.....GO PCS-55
Pascal SIG..... GO PCS-55
Password, Changing:
Changing Password ..... GO CIS-175
Changing Password ⓔ ..GO GUI-120
Personal Computing ..... GO PCS
Personal File Area..... GO CIS-174
Personal File Area ⓔ..... GO PER
Personal Finance:
Home Management.....GO HOM-80
Personal Menu..... GO CIS-33
Personal Menu ⓔ ..... GO EIS-26
Personality Profile.....GO TMC-17
Political News:
Wash. Post, Politics ..... GO TWP-15
Politics:
AP Videotex, Politics ..... GO APV
Political Forum.....GO HOM-41
Portfolio Valuation ⓔ ...GO IQ-700
PowerSoft's XTRA-80... GO PCS-56
Primetime Radio Classics.. GO PRC
Problems:
Feedback to CompuServe.. GO CIS-8
Feedback to CompuServe ⓔGO FEED
Product Ordering ..... GO CIS-54
Product Ordering ⓔ.....GO GUI-70
Programmer's SIG .... GO PCS-158
Publications:
Government Publications.... GO GPO

Q

Questions:
Feedback to CompuServe.. GO CIS-8
Feedback to CompuServe ⓔGO FEED
Quick Quote.....GO FIN-20
Quick Reference List ...GO CIS-185
Quick Reference List ⓔ... GO EIS-8
Quips:
The National Satirist.....GO KCS

R

RCA SIG..... GO PCS-57
Rapaport Diamond Broker. GO RDC
Rates:
CompuServe Rates..... GO BIL
CompuServe Rates ⓔ ...GO GUI-100
Ratios:
Value Line Financials ..... GO FIN-20
Value Line Financials ⓔ... GO IQ-500
Real Estate:
StL Post-Disp., Real Est..... GO SPD
World-Wide Investment Sys GO WIS-1
Recipes:
Electronic Gourmet.....GO HMS
Recreation:
WorldWide Exchange..... GO WWX
Reference:
Reference Library .....GO HOM-20
Religion Forum ..... GO HOM-33
Research:
Educ. Research Forum...GO HOM-28
Government Publications.... GO GPO
InfoText ..... GO IFT
Information On Demand .....GO IOD
Reversi ..... GO GAM-40
Road Maps:
TravelVision.....GO TRV
RockNet..... GO ROK
Roulette..... GO GAM-42

S

SAVINGS-SCAN..... GO SAV
SCI-FI Forum..... GO HOM-29
SHO-TIME Movie Catalog. GO MOV
Satire:
The National Satirist.....GO KCS
Science Educ. Forum ... GO EDU-13
SCI-FI/Fantasy Forum.. GO HOM-29
Scott Adams' Games.. GO GAM-28
Scramble..... GO GAM-43
SeaWar..... GO GAM-57
Services for Handicapped:
Hand. Users' Database ..... GO HUD
Shareholders Freebies..... GO FRE
Shawmut Bank of Boston .GO SHW
Shawmut Bank Boston ⓔGO BAN-30
Shop-at-Home:
Comp-U-Store ..... GO CUS
Electronic Mall..... GO EM
Shop-at-Home ..... GO HOM-40
Shop-at-Home ⓔ .....GO SHO
Showbiz Quiz..... GO SBQ
Ski Forum ..... GO HOM-36
Skiers Information Service .GO SKI
Social Security Admin..... GO SSA
Society of Mining Engineers....GO SME
Softex..... GO PCS-40
Software Reviews:
Whole Earth Software SIG ..GO WEC
Space SIG ..... GO HOM-127
Space Trek..... GO GAM-26
Space War..... GO GAM-25
Sports:
Auto Racing Forum..... GO RIS
Olympic Scoreboard.....GO OLY
PGA Official Tour Guide..... GO PGA
Skiers Information Service ... GO SKI
Sports Forum..... GO HOM-110
Sports News .....GO SPORTS
Sports Weather Forecasts...GO WEA
TeleSports.....GO TSP
Sports News:
AP Datastream ..... GO SPD-1005
AP Datastream ⓔ.....GO TWP
StL Post-Disp., Sports ..... GO SPD
TeleSports.....GO TSP
Wash. Post, Sports.....GO TWP
Sports Forum..... GO HOM-110
StL Post-Disp., Autos..... GO SPD
StL Post-Disp., Business... GO SPD
StL Post-Disp., Classified .. GO SPD
StL Post-Disp., Jobs..... GO SPD
StL Post-Disp., Real Est ... GO SPD
StL Post-Disp., Sports..... GO SPD
StL Post-Disp., U.S. News . GO SPD
Standard & Poor's ..... GO FIN-20
Standard & Poor's ⓔ.... GO IQ-500
State Capital Quiz .....GO TMC-44
Stevens Business Reports . GO SBR
Stocks:
Max Ule's Tickerscreen .....GO TKR
Stocks, Bonds:
Exp. Inv./MicroQuote II ⓔ. GO IQ-200
Historical Pricing ⓔ ..... GO IQ-400
MicroQuote ..... GO FIN-4
MicroQuote ⓔ..... GO IQ-200
Quick Quote..... GO FIN-20
Ticker Retrieval ⓔ..... GO IQ-100
Suggestions:
Feedback to CompuServe.. GO CIS-8
Feedback to CompuServe ⓔGO FEED

T

TELE Forum ..... GO EDU-11
TELECUE Forum ..... GO EDU-12
TRS-80:
Color Computer SIG.....GO PCS-126
TRS-80 Prof. Forum .... GO PCS-21
TRS-80:
Tandy Newsletter .....GO TRS
TRS-80 Model 100 SIG .GO PCS-154
TYMNET Logon Instruct GO LOG-11
Tandy Newsletter ..... GO TRS
Tax Laws:
Stevens Business Reports .. GO SBR
Teachers:
Educ. Research Forum...GO HOM-28
TeleComm SIG..... GO PCS-52
Telenet Logon Instruct . GO LOG-20
Telephone Access Numbers:
Access Phone Numbers . GO LOG-50
Access Phone Numbers ⓔGO GUI-30
TeleSports..... GO TSP
Terminal Software ..... GO PCS-20
Terminal Parameters, Changing:
Changing Terminal Type.... GO CIS-9
Changing Terminal Type ⓔ GO GUI-40
Texas Instruments Forum.....GO PCS-27
Text Editors..... GO PCS-20
Text Retrieval:
InfoText ..... GO IFT
Information On Demand .....GO IOD
The Business Wire .....GO TBW
The College Board ..... GO TCB
The Multiple Choice.....GO TMC
Ticker Retrieval ⓔ ..... GO IQ-100
Ticker/Cusip Lookup ⓔ . GO IQ-1350
Touch-Type Tutor.....GO TMC
Transaction Charges ⓔ..GO GUI-67
Travel:
A-Z Hotel Database.....GO ATZ
Official Airline Guides..... GO OAG
Travel Fax ..... GO ESC
Travelshopper..... GO TWA
TravelVision.....GO TRV
West Coast Travel.....GO WCT
WorldWide Exchange..... GO WWX
Travel Fax ..... GO ESC
Travel SIG ..... GO HOM-157
Travel Abroad:
Department of State..... GO DOS
Travelshopper..... GO TWA
TravelVision ..... GO TRV
Trivia Test .....GO TMC

U

U.S. News:
Federal Registery Highlights. GO GPO
StL Post-Disp., U.S. News .. GO SPD
Wash. Post, U.S. News.....GO TWP
Unified Management..... GO UMC
United American Bank .....GO HOM-152
United American Bank ⓔGO BAN-40
User Directory ..... GO HOM-4
User Directory ⓔ .....GO DIR

V

VAX SIG..... GO PCS-16
VIDTEX Information.....GO VID
Vacations:
WorldWide Exchange..... GO WWX
Value Line Financials.... GO FIN-20
Value Line Financials ⓔ . GO IQ-500
Value Line Projections... GO FIN-18
Value Line Projections ⓔ GO IQ-600
Video Information..... GO VIF
Videocassette Library:
SHO-TIME Movie Catalog ...GO MOV
Videocassette Releases:
Video Information ..... GO VIF

W

Wanted:
Bulletin Board .....GO HOM-30
Wargames:
MegaWars I.....GO GAM-209
MegaWars III.....GO GAM-105
Space War.....GO GAM-25
Wash. Post, Business... GO TWP-12
Wash. Post, Editorials.....GO TWP
Wash. Post, Financial.....GO TWP
Wash. Post, Gov't News...GO TWP
Wash. Post, Politics ....GO TWP-15
Wash. Post, Sports.....GO TWP
Wash. Post, U.S. News....GO TWP
Wash. Post, World News ..GO TWP
Weather:
AP Videotex, Weather ..... GO APV
Aviation Weather.....GO AWX
NOAA Weather Wire .....GO WEA
NWS Aviation Weather ..... GO AWX
West Coast Travel.....GO WCT
What's New ..... GO NEW
The Whiz Quiz ..... GO EDU-6
Whole Earth Software SIG GO WEC
Wine .....GO VIN
WITSIG..... GO HOM-12
Words of Wit & Wisdom .GO WWW
Work-at-Home Forum .GO HOM-146
World of Lotus.....GO LTS
World News:
AP Videotex, World News... GO APV
Wash. Post, World News ...GO TWP
WorldWide Exchange.....GO WWX
World-Wide Investment Sys ....GO WIS-1
Wumpus ..... GO GAM-44

HOME SERVICES

Travel *GO HOM-90*

Discover Orlando
sponsored by Educational Media Services, offers all the information you need to plan a Central Florida vacation. Information is included on such world-famous attractions as Disney World, Sea World, the Kennedy Space Center, Weeki Wachee and Busch Gardens.
GO ORL

A-Z Worldwide Hotels
an extensive listing of over 20,000 hotels worldwide with detailed information regarding rates, location, facilities and features. This database is searchable by price, location, features or specific hotel name.
GO ATZ

TWA Travelshopper
an innovative program that allows consumers direct access to the TWA Pars reservation system. This is the first program that provides reservation capabilities directly to the consumer. With Travelshopper, you can access all fares for all carriers, select the date and time that is most convenient for you, and make your reservations.
GO TWA

TravelVision
a travel service for CompuServe subcribers planning vacations by automobile. TravelVision provides city, regional and state maps of the U.S., Mexico and Canada, as well as a 72-page TravelVision Travel Atlas. Also, auto-cassette tours for specific areas. Plan your own path, or let the TravelVision Routing Service recommend the best way to reach your destination.
GO TRV

Official Airline Guides Electronic Edition
contains all the commercial airline flight schedules operating throughout the world. Also included is detailed fare information for flights operating within North America. The schedule information is revised weekly while the fare information is updated daily.
GO OAG

Pan American World Airlines Immigration Guide and Frequent Flyer Worldpass Program
Pan Am's Immigration Guide offers helpful information about immigration requirements in all countries to which this major commercial airline flies. The Worldpass program offers special benefits to frequent Pan Am customers.
GO PAN

U.S. Department of State Travel Advisories
a catalog of all worldwide travel advisories and hazardous situations in countries which may affect American citizens.
GO DOS

Travel Fax
Escape Inc. provides this business and tourist information guide to foreign countries traveled frequently by Americans. This offering includes information about customs, holidays, exchange rates, weather and other relevant demographics of each foreign country included.
GO ESC

Worldwide Exchanges
a clearinghouse for exchange, rent and charter of yachts, RVs, condos, vacation homes, private aircraft, powerboats, and bed and breakfast inns throughout the world.
GO WWX

West Coast Travel
a guide for vacationers on the west coast providing detailed information on attractions, restaurants, lodgings and related features.
GO WCT

Entertainment *GO HOM-31*

Showbizquiz™
a new trivia game database with movie, television, music and celebrity-related games.
GO SBQ

Hollywood Hotline
a news and information service of noteworthy events in motion pictures, television programs and music recordings. Also included are ratings of movies, TV shows, LPs and videocassettes. Short news items highlight television shows, describe legal battles and profile personalities.
GO HHL

Hollywood Hotline's Movie Reviewettes™
a thorough and witty treatment of the most recent movie releases. The movie rating guide makes finding a good movie easier.
GO NMM

Video Information
information on all major aspects of the video industry. Reviews and information on the latest video equipment are included. A Professional News and Notes section is geared specifically to producers and sellers of video equipment.
GO VIF

Shopping *GO HOM-40*

New Car Showroom
a comparison shopping guide for consumers making new car purchases. Examine and compare passenger car features and specifications. Over 250 foreign and domestic cars are compared in price, standard and optional features and technical specifications, such as fuel economy and roominess.
GO ATO

Comp-U-Store
a discount home shopping catalog service listing nearly 60,000 name-brand, durable consumer items such as watches, TVs, radios, VCRs, kitchen appliances, music and sporting equipment, and gourmet foods. Offered by CompuCard International Inc. of Stamford, Conn., this service requires membership, and purchases are payable to major credit cards. An online auction is a weekly feature.
GO CUS

Electronic Mall
provides easy ordering of thousands of products and services from brand name merchants and contains hundreds of pages of helpful information from each and every company represented. The Electronic Mall contains a variety of shopping areas, each one representing a particular type of product and group of merchants. Type "O" for easy ordering in the mall.
GO EM

Savings-Scan
provides savings from 30 to 70 percent on items listed in a daily, updated catalog. Goods listed include undamaged liquidation or salvage stock, manufacturers' overruns, discontinued product lines and factory seconds. The list is constantly changing.
GO SAV

Primetime Radio Classics
a home shopping catalog comprised of old-time radio program cassette tapes for order via major credit cards. Included in the listings are The Shadow, Amos & Andy, Burns & Allen, Great Gildersleeve, Inner Sanctum, Lux Radio, Lone Ranger and many more.
GO PRC

Forums *GO HOM-50*

Auto Racing Forum
a forum dealing with all forms of amateur and professional auto racing.
GO RIS

CBers Forum
a general topic forum dedicated to the dialogs of the many CB Simulator users.
GO HOM-50

Calculate Your Net Worth
a program which helps you compute total assets and liabilities. At the end of the program, a detailed report is generated listing assets, liabilities, totals and net worth.
GO HOM-16

Amortize a Loan
a program which provides a detailed amortization schedule including such information as beginning balance, interest repayment, principal repayment, ending balance and total interest paid.
GO HOM-17

BUSINESS & FINANCE

Investments & Quotations *GO FIN-1*

Agri-Commodities
is a weekly commodity newsletter featuring trading recommendations from its Futures Focus TSF Indicator. The Indicator combines important technical, seasonal and fundamental factors to identify potentially profitable long- and short-term positions. Also provides a market overview section and tips on improving your trading performance.
GO ACI

Commodity Market Analysis and Quotes
available from News-A-Tron, includes selected grains, precious metals, petroleum products, and foreign exchange rates. News-A-Tron also offers oscillator information on selected market indices.
GO NAT

Shareholder Freebies
directs your attention to companies who offer free product samples, product discounts, and dividend reinvestment plans to their shareholders. Includes anecdotes and background on the freebies concept.
GO FRE

MicroQuote
provides historical market information for more than 50,000 stocks, bonds, market indices, mutual funds, government issues and options traded on U.S. and Canadian exchanges. Historical prices and volumes are available for most stocks back to 1/1/1974, and historical dividends are available back to 1/1/1968. MicroQuote and its features listed below can be found by typing
GO FIN-20

Market Reports (MKTHIGH)
provides up to 19 daily market reports, such as stocks up three, four or five days in a row, volume leaders, 20 most active stocks, 20 largest gains/losses, etc.

Examine an Issue in Detail (EXAMINE)
displays descriptive information for a specified issue (i.e., Standard & Poor's rating, shares outstanding, beta factor, latest bid, pricing and dividend history, Moody's rating, bond coupon rate, yield, maturity date or open interest).

Data Retrieval (DATA)
writes information in a format compatible with your microcomputer, enabling you to download prices for analysis on your microcomputer. Price and dividend information such as volume, high/ask, low/bid, close, dividend amount, type, ex-date, record date and payment date can be retrieved.

Color Plots (VIDPLT or TELPLT)
provide an excellent means of reviewing trends and performance of your favorite securities. Through MicroQuote, plots for up to 17 periods of data (either daily, weekly or monthly) can be received on selected microcomputers (using the VIDTEX Executive) such as the TRS-80 Color Computer, TRS-80 Models I and III, Atari 400, Commodore PET, TRS-80 Videotex Terminal, IBM PC with color monitor, Osborne, and Atari 800. Telidon graphics for 60 periods of data (daily, weekly or monthly) can be received on compatible equipment.

Prices (PRICE)
provides price quotations for any specified time period for a specified security. Price information includes the date, volume (in 100s), high/ask, low/bid and close.

Dividends, Bond Interest Payments, and Splits (DIVI)
offers dividend or distribution information and includes the ex-date, record date, payment date, distribution type and rate.

Multiple Price Quotes (QUOTES)
provides a price quote for a specified day for one or more securities (maximum of 500 securities). A quote would include ticker symbol, volume, high/ask, low/bid, close/avg and CUSIP number.

Portfolio Summary (PORT)
produces a valuation report on a portfolio, displaying current values and gains or losses.

Summary Statistics (STATS)
provides descriptive statistics for an issue over a specified time period. The high, low, close, high close, low close, volume, mean and standard deviation are reported.

Search for CUSIPs and Ticker Symbols (CUSIP)
searches and lists specified security issues by company name. Also lists all the issues for a given issuer.

Quick Quote
provides current-day quotes for 9,000 stocks. Quotes include the high, low, closing, volume and net change figures for the NYSE, AMEX and many OTC securities. Advanced features include a search by company name if the ticker symbol is not known, and the capability of reading in a file to check multiple securities.
GO FIN-20

Annual/Quarterly Report *GO FIN-20*

Standard & Poor's (S&P)
provides up-to-date descriptive and financial information on more than 3,000 companies. Information is presented in categories such as Business Summary, New Product Developments, Net Income, Product/Service Line Breakdown, Net Sales Figures, Three-year EPS Data and Five-year EPS Growth Rate.
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Value Line Data Base II
provides current and historical fundamental financial data that allows you to analyze the performance of more than 1,700 companies which collectively represent 95 percent of the dollar value of stocks traded on major U.S. exchanges. This information is available back to 1969 and can be retrieved via VLANN, VLFORE, and VLDATA.
•VLANN provides annual financial statements: Balance Sheets, Income Statements, Sources and Uses of Funds and Key Ratios.
•VLFORE provides 3- to 5-year earnings forecasts.
•VLDATA allows access to all 416 accounts including Earnings Estimates, Target Price Forecasts, Beta, Pre-computed, commonly used ratios and Per share figures in a format ideal for downloading to your microcomputer for analysis with your own programs. **Note:** prior authorization is required to access VLDATA.
GO FIN-20

Banking and Brokerage Services

Home Banking
allows you to pay your bills, transfer funds and check your account balances from the comfort of your home. Convenient and innovative banking services are available to customers of First Tennessee Bank, Central Trade Bank of Memphis, Shawmut Bank of Boston and Huntington National Bank of Columbus.
GO HOM-45

Unified Management Corporation's Liquid Green Trust
includes access to a money market fund offering high yields, free checking and safety of principal. Authorized Liquid Green Trust customers can check their account balances and initiate ACH cash transfers to and from their local banks.
GO FIN-40

News Reports *GO FIN-10*

The Business Information Wire
provides stories gathered by reporters across Canada and from correspondents abroad. This wire service is updated continuously throughout the day and edited by the Canadian Press with the particular information requirements of the business subscriber in mind.
GO BIW

The Business Wire
provides press releases and news articles from the world of business. Updated continuously throughout the day, The Business Wire offers timely information on hundreds of different companies.
GO TBW

PERSONAL COMPUTING

News *GO PCS-10*

Antic Magazine
an online magazine for Atari users.
GO ANTIC

Borland International Forum
Borland, specializing in high-performance, low-cost software, lends support to the users of its software through an online forum. Current Borland products include Turbo Pascal and Sidekick.
GO BOR

Commodore
produced by the manufacturers of Commodore computers. The Commodore newsletter has an introductory section, news from headquarters, directions on using the Forum, a "hotline" for sending messages to Commodore and a list of current Commodore retail prices.
GO CBM

Computer Language
an electronic counterpart to the print magazine, *Computer Language* covers development and trends in programming languages.
GO CLM

Creative Computing
an online forum for readers of Creative Computing magazine. Forum Sections correspond to magazine departments, and users may communicate with the editors through the forum.
GO CRE

Digital Research
a forum allowing online access to Digital Research's Technical Support Center. Forum database libraries contain all of the application notes and common questions for Digital Research products — Free to all Digital Research customers.
GO PCS-13

EpsOnLine Forum
an Epson user forum discussing hardware, software and peripherals. EpsoNews and Reviews with new product announcements from Epson are included.
GO PCS-19

Family Computing Electronic Edition and Forum
offers the latest news and reviews, a television section for comments and a Talk to the Editors section. Join the ongoing discussion in the Family Computing Forum.
GO FAM

IBM Novice Forum
for personal computer owners who are beginning users of IBM Personal Computers. The Novice Forum works with the IBMSIG to provide an information resource for all levels of expertise.
GO PCS-129

Interex/H-P Forum
online forum supported by the International Association of Hewlett-Packard Computer Users. Includes a public message system, database of software and information, and a conferencing facility.
GO PCS-28

Tandy Newsletter
news and product announcements from the makers of TRS-80 computers.
GO TRS

Reference *GO PCS-20*

Mathematics and Statistics
descriptions of multiple linear regression and root programs.
GO PCS-96

Softex
a software shopping service, Softex is a program allowing users to purchase and download software through the network into their home computers. Programs are also available through the mail. The VIDTEX Executive terminal program is required for downloading. Programs are presently available for the TRS-80 Model I, II, and III, Apple II, IBM and Load 80 programs from 80 Micro magazine.
GO PCS-40

Software Reviews
from the InfoWorld news publication, this service contains reviews of computer software and a Feedback section to ask specific questions of InfoWorld.
GO INF

Special Features
a brief description of line printer services available to all CompuServe customers.
GO PCS-98

Terminal Software
a thorough description of the capabilities of CompuServe's VIDTEX software for the TRS-80 Model I and III.
GO VID

Text Editors
a brief summary of the different text editors available online in the Personal Computing area.
GO PCS-82

The World of Lotus
a new Lotus Development Corp.-based service with information about Lotus products and services as well as forums for Lotus users.
GO LOTUS

Utilities
a brief listing of some of the utilities available on CompuServe.
GO PCS-88

Word Processing
a description of CompuServe's powerful RUNF10 word processing program.
GO PCS-86

Forums *GO PCS-50*

Commodore
three groups that discuss applications, software and communications for Commodore PET, VIC 20 and the Commodore 64 personal computers. These user's groups are sponsored and maintained by Commodore International.
GO PCS-50

CP/M SIG
a group that has a common interest in the fast growing and popular CP/M operating system. The group discusses CP/M-based software and the various types of machines that support CP/M systems.
GO PCS-50

HUG
Heath Users' Group, comprised of owners of Heath microcomputers. The members of this group trade software and offer tips on the use of Heath Equipment. HUG also has a database of public domain programs for the Heath microcomputer.
GO PCS-50

LSI Users
the LSI Users' Group is comprised of people interested in the uses and applications of the advanced LDOS operating system for the TRS-80. They are organized by Galactic Software.
GO PCS-50

MicroPro Forum
forum for distributing information and assistance relating to the MicroPro family of software.
GO PCS-29

MUSUS p-sys.
sponsored by the UCSD p-System Users' Society (USUS) to promote the exchange of information about UCSD Pascal and its various applications. MUSUS also provides member to member and member to USUS communication, including the interchange of programs written in UCSD Pascal.
GO PCS-50

Online Today Electronic Edition
an electronic extension of *Online Today* magazine. Contains frequently-updated computer and videotex industry news; reviews of hardware, software and books; new product announcements; and a direct link to *Online Today* advertisers.
GO OLT

SERVICES FOR PROFESSIONALS

Aviation Services *GO SFP-20*

Aviation Safety Institute
provides information on a variety of safety-related topics. Topics include Service Difficulty Reports and Hazard Reports, along with articles on flight operations, human factors and safety tips. The information in this electronic newsletter is updated twice a month.
GO ASI

Aviation Forum (AVSIG)
a discussion forum where members representing all segments of the aviation community can exchange ideas and information. The group currently has more than 3,000 members. These members can leave and retrieve messages under 10 different topics including general information, airframe, air traffic control, avionics, home/experimental aircraft, noise and powerplants. Members can also participate in "online conferences" to communicate with other individuals in real time. Members can also access "databases" such as a report on the effects of air turbulence and a list of National Weather Service word contractions.
GO SFP-6

Aviation Weather
includes hourly reports, terminal forecasts, previous hourly reports, winds aloft forecasts, NOTAMS, PIREPS, SIGMETS, AIRMETS, area forecasts, radar summaries and radar weather maps. Reports are updated throughout the day as information is received from the National Weather Service. **Note:** A "Flight Planning and Aviation Weather Users' Guide" that provides further explanation of these services can be ordered from CompuServe.
GO AWX

Flight Planning
three programs are available which prompt the user for all necessary input to calculate a complete flight log between any two points in the continental U.S. One program produces a Great Circle RNAV flight route. A second creates an incremental approximation to a Great Circle course via VOR/DME stations. The third program accepts user entered NAVAIDS and creates an incremental approximation to a Great Circle course. The database includes the coordinates of nearly 6,000 U.S. airports and will accept the latitude and longitude of airports not included in this database.
GO EMI

Aircraft Insurance Buyer's Guide
contains helpful information to guide aviation professionals in purchasing the proper aircraft insurance coverage. Also included are digests of recent actual court cases following accidents in which insurance companies refused to pay. Written by FAA licensed Airline Transport Pilot Jay C. White, the Buyer's Guide provides nontechnical information for the professional with limited time to devote to insurance needs.
GO AVL

EMI Radar Map
program assembling a radar precipitation map of the U.S. with numerical indicators of precipitation density. Weather data digitized by the National Weather Service.
GO EMI-8

FAA Rule Changes/NTSB Cases
a report of the Rule and Regulation actions of the Federal Aviation Administration published in the Federal Register. Updated twice monthly, this feature provides notice of any proposed rule that would have substantial public impact. Also included are actions such as issuance of advisory circulars and airworthiness directives, and the granting of individual exemptions from certain FAA Regulations.
GO AVR

VIDTEX Weather Maps
display U.S. weather data using terminal graphics modes. A terminal with high or medium resolution graphics and a CompuServe VIDTEX Executive program are required.
GO SFP-20

Medical Services *GO SFP-50*

AAMSI Communications Network
information provided by the same organization that sponsors the Medical Forum. The data in this electronic newsletter is updated monthly and includes medical journal abstracts and book reviews, vendor information and an index of current journals. This service also features a description of medical programs that compute clinical values for a variety of tests, procedures and diagnostic situations.
GO AAM

AAMSI Medical Forum
a "discussion forum" sponsored by the American Association for Medical Systems and Informatics. Members represent all segments of the professional medical community and use this forum to exchange ideas and information on medically-related topics. Members can access an extensive "help" file on how to use this forum and receive a listing of computer-based bulletin boards and databases that contain medical information. Other items of interest in the forum include general information on the U.S. National Library of Medicine's Medline service and a description of the microcomputer version of the MUMPS language. Another forum feature that members can take advantage of is "online conferences" where the members discuss a topic via their computer keyboard. This forum currently has over 3,000 members throughout North America.
GO SFP-5

FOI: Newsline
provides topical FDA information for medical and regulatory affairs professionals. The information includes FDA press releases and Federal Register Notices, drug approvals, device approvals, FDA regulatory letters and new FDA documents. FOI also offers an online FDA document ordering service.
GO FOI

Healthcom Medical Information Service and Health Forum
database supplying medical information for medical professionals and consumers. Features the searchable Rare Disease Database. Forum allows professionals and other users to participate in health-related discussions.
GO HCM

OBGYN Forum
features an expert-of-the-week who discusses medical topics for professionals. A section on women's health questions and answers lists inquiries and responses by topic.
GO OBGYN

Environmental Services *GO SFP-1*

Information Retrieval Services (Infotext)
an information retrieval service designed to gather data, research current events and perform literature searches for the busy professional. Infotext is a fee-based organization providing compiled, up-to-date information in all fields of science and engineering. With access to hundreds of databases, Infotext can compile and deliver the information to help you maintain a competitive edge.
GO IFT

Communications Industry Forum
a forum dealing with the technical and aesthetic sides of electronic communications including broadcast radio and television, cable and pay television, data and telephone communications, two-way radio communications and common carrier networks. There is a bulletin board area to post messages related to fields such as engineering and technical, research and development, legal and regulatory, journalism, advertising, marketing and promotion.
GO SFP-30

Military Veterans Forum
a forum for veterans of the armed forces, with sections for such topics as Locator Service, Vietnam Vets and Veterans personal adjustment. Also added is a menu for non-veterans and a feedback section for questions about veterans benefits, military careers and other information.
GO VET

World-Wide Investment Service
a computerized investment appraisal system to determine the price of your investments.
GO WIS

Toshiba P1340:

High-Speed Letter-Quality Printing Plus Qume-Compatible Commands

Toshiba America Inc. (TAI)
Information Systems Div.
2441 Michelle Dr.
Tustin, CA 92680
714/730-5000

Computers: Any computer with Centronics-compatible parallel interface; RS-232C serial interfacing also is available.
Operating System: Not applicable.
Media: Not applicable.
Required Peripherals: None.
Other Requirements: Suitable I/O port in the computer with interface cable; software capable of supporting the P1340 directly or supporting the Qume Sprint 5 command structure.
Optional Items: Parallel or serial interface (factory installed as specified when ordered).
Systems used for test: Connected via a CompuLink (ConsoLink) 62K SooperSpooler simultaneously to both a Morrow Micro Decision MD3 (CP/M) using a 1200-bps serial port and a COMPAQ DESKPRO (MS-DOS) using its built-in parallel printer port.
List Price: $995

Reviewed by Ernest E. Mau

For a modestly priced printer, the Toshiba P1340 is nothing less than spectacular, especially for high-speed high-quality text printouts.

The P1340's printhead is the key to generating crisp type with little resemblance to typical dot-matrix characters while providing unusually fast speeds. That printhead contains 24 pins, each with a diameter of only 8 millimeters. Compare that to the eight or nine pins that usually are much larger in other dot-matrix printers, and it's obvious that the P1340 can print with far greater definition. Add the fact that the dots overlap slightly, and character images approach contiguous lines instead of discrete dot arrangements.

The manufacturer's claim of doing in a single pass across a line what other printers require two passes to accomplish is not at all farfetched. As a result, it can provide draft quality printing at 144 characters per second with a 24 by 13

character cell and "Letter Perfect" printing at 56 characters per second with a 24 by 18 cell. The results at either speed were much more aesthetic than draft and letter-quality results I've achieved from most other printers.

The only problem I had with printouts was that the ultra-fine dots gave draft-quality printouts too little density for comfortable reading. During lengthy proofreading sessions, lack of contrast between letters and paper bothered my eyes, and using fresh ribbons was essential to maintaining any readability. Yet, draft quality certainly is acceptable for archival storage or occasional reference. On the other hand, high-quality Letter Perfect printouts were beautiful, giving cleanly formed characters, good contrast and little evidence of the component dots.

The P1340 also is versatile, providing character spacing selectable from 6, 10, 12 or 16.7 characters per inch (pitch) and built-in proportional spacing. Bidirectional printing is provided. Actually, horizontal spacing can be controlled to within 1/120 inch, so an almost unlimited number of character spacings can be used. Similarly, vertical spacing can be controlled to within 1/48 inch. In addition, the P1340 handles expanded type, block graphics, high-resolution dot-addressable graphics, true above- and below-line superscripts and subscripts, boldfacing and underlining.

One thing that struck me as unusual was the tractor feed for continuous form paper. Unlike most that pull paper out of the printer, this tractor pushes paper in from the feed side. Normally, it gives surprisingly smooth feeding, but loading paper is a little tricky because an access cover must be removed to get at the tractor and then reinstalled. Also, it's easy to misalign printouts if paper feeding out is bumped, stacks unevenly or skews. On the other hand, single-sheet feeding is simplified because the tractor isn't in the way and doesn't have to be removed or repositioned.

Another unusual feature is that the P1340 is controlled by the same commands as a Qume Sprint 5 daisywheel printer. While many dot-matrix printers seek to emulate Epson models and their Graftrax option, it was a pleasure to have a dot-matrix printer working perfectly with accumulated software installed for the Qume. This also allows enables the printer to be used with programs not usually intended for dot-matrix printing, especially some high-end word processors.

Conversely, the P1340 may not be easily usable with software designed for extensive graphics, such as word processors that download special character fonts. While it does have dot-addressable graphics and a download capability, they are best reserved for compatible software. Inclusion of the P1340 in the setup menus of application programs is somewhat spotty. Although I did find it in several recent application packages, it probably will be some time before truly widespread acceptance is achieved.

I was pleased with the P1340 for text applications. The unit isn't as ruggedly constructed as some I've seen, nor is it as flimsy as others. It seems capable of giving long service if it's not abused. The noise level is a little higher than I like, but not disturbingly so unless I do extensive enhanced printing with boldfacing, double striking, underlining and the like.

Were I to complain about anything, it would be that printing enhancements require too much printhead motion. My old Qume Sprint 5 does a superb job of minimizing motion by dwelling on a single character while boldfacing or underlining. The P1340 almost goes crazy moving the printhead back and forth, seemingly trying to shake itself apart. It gets the job done so it's not a serious fault, but better motion minimization would give less noise and printer vibration.

Nevertheless, people needing quality text printouts and few graphics would do themselves a favor by considering the P1340.

Circle 8 on the Reader Service card or GO EBB.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 200 articles on microcomputer products and applications.*

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8" SSSD IBM Compatible 128B/S, 26 Sector	———	———	F111-Y	1.59	———	———	8SSSD-Y	1.94
8" SSSD Shugart Compatible, 32 Hard Sector	———	———	F31A-Y	1.79	———	———	———	———
8" SSDD IBM Compatible (128 B/S, 26 Sectors)	———	———	F131-Y	1.89	———	———	8SSDD-Y	2.39
8" DSDD Soft Sector (Unformated)	———	———	F14A-Y	2.09	———	———	8DSDD-Y	2.89
8" DSDD Soft Sector (256 B/S, 26 Sectors)	———	———	F144-Y	2.09	———	———	———	———
8" DSDD Soft Sector (512 B/S, 15 Sectors)	———	———	F145-Y	2.09	———	———	———	———
8" DSDD Soft Sector (1024 B/S, 8 Sectors)	———	———	F147-Y	2.09	———	———	8DSDD-1024-Y	2.89
5¼" SSSD Soft Sector w/Hub Ring	6431-Y	1.04	M11A-Y	1.09	———	———	———	———
5¼" SSSD Same as above but bulk product	6437-Y	0.84	M11AB-Y	0.89	———	———	———	———
5¼" SSSD 10 Hard Sector w/Hub Ring	———	———	M41A-Y	1.09	———	———	———	———
5¼" SSDD Soft Sector w/Hub Ring	6481-Y	1.19	M13A-Y	1.24	54974-Y	1.34	5SSDD-RH-Y	1.49
5¼" SSDD Same as above, but bulk product	6487-Y	0.99	M13AB-Y	1.04	———	———	———	———
5¼" SSDD 10 Hard Sector w/Hub Ring	———	———	M43A-Y	1.24	———	———	———	———
5¼" DSDD Soft Sector w/Hub Ring	6491-Y	1.34	M14A-Y	1.49	54980-Y	1.54	5DSDD-RH-Y	1.99
5¼" DSDD Same as above, but bulk product	6497-Y	1.14	M14AB-Y	1.29	———	———	———	———
5¼" DSDD 10 Hard Sector w/Hub Ring	———	———	M44A-Y	1.49	———	———	———	———
5¼" DSDD 16 Hard Sector w/Hub Ring	———	———	M54A-Y	1.49	———	———	———	———
5¼" DSDD Soft Sector 96 Tracks per inch	6501-Y	2.14	M16A-Y	2.49	———	———	5DSDD-96RH-Y	2.79
5¼" DS High Density Soft Sector for IBM PC AT	———	———	M1BA-Y	3.99	———	———	5DSHD-96-Y	4.99
3½" SSDD Soft Sector micro-floppy	———	———	C13A-Y	2.99	54112-Y	2.99	3SSMD-Y	2.99

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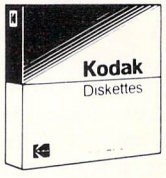

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———	———
126-3789-Y	3.14
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———	———
———	———
111-1806-Y	1.84
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177-3688-Y	2.59
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130-4344-Y	3.89
198-4806-Y	5.89
127-3382-Y	3.99

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Media: Two disk drives.
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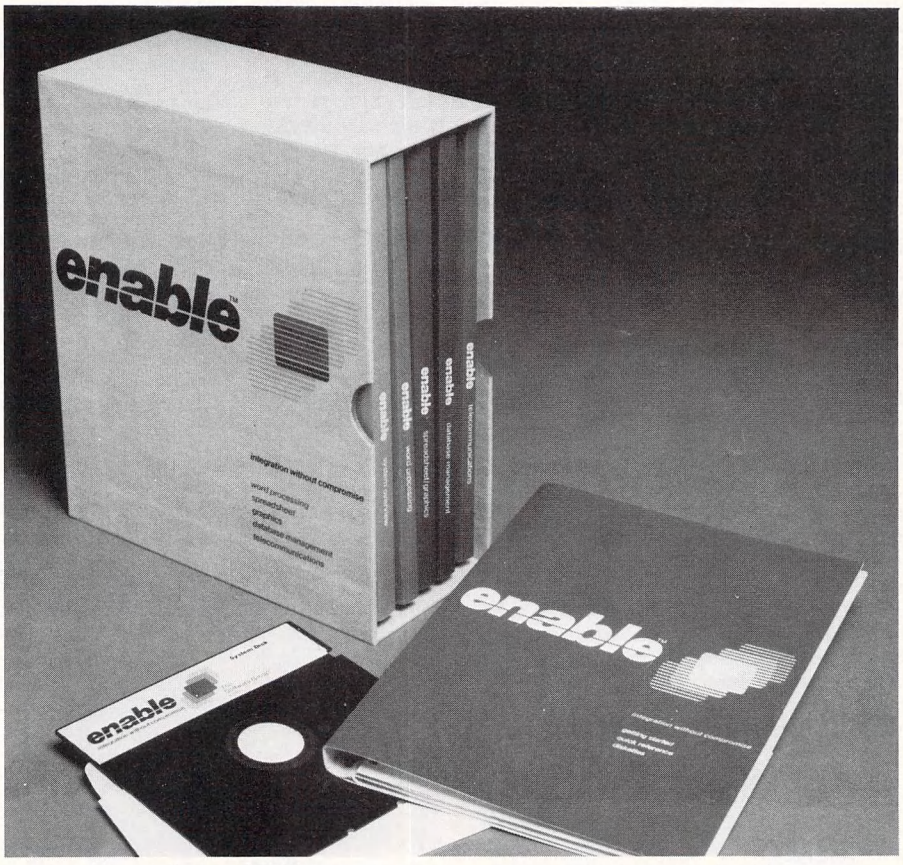
Other Requirements: 192K RAM.
Optional Items: Printer.
System used for test: 484K IBM PC, two double-sided double-density disk drives, Okidata Microline 84 printer, running PC-DOS 2.1.
List Price: $695



Reviewed by William J. Lynott

It was 1982, still the Dark Ages in the youthful world of personal computer software. With surprisingly little fanfare, a new concept found its way to market. Its authors called it Context MBA. Integrated software had been born.

Close on its heels came a second entry. The newcomer was dubbed Lotus 1-2-3, and there wasn't even a hint of shyness from its creators. Lotus 1-2-3 was launched with what was then one of the most ambitious advertising campaigns ever seen in the computer industry. The race was on.

The basic idea of integration is to combine functions such as word processing, database management, spreadsheet and graphics into a single synergistic system. To say that some of the two dozen or so "integrated" packages now on the market have failed to fulfill that promise is to be guilty of reckless understatement. With no clear definition of what constitutes true integration to restrain them, publishers have assaulted the marketplace with packages that are hardly more than stand-alone programs coupled loosely by similar command structures.

Not to worry. Buried in the pile are a few shining stars. Enable is one. In fact, it might well be the best of them all.

Enable combines five functions into one truly integrated system — spreadsheet, database, graphics, word processing and telecommunications. Unlike many competitors, each function is a powerful program perfectly capable of standing alone. Happily, they're all tied together in a slick system that clicks along as smoothly as an expensive wristwatch.

Because it is such a powerful package, Enable can seem intimidating at first. However, its remarkably slick design and consistent command structure become comfortable after a brief acquaintance.

Enable comes on three diskettes, one of which is a tutorial that you won't be using after a few hours of practice. The other two are the System disk and the Operation disk.

The heart of Enable is the Master Control Module (MCM), which resides on the System disk. MCM contains applications common to all program functions. This arrangement makes for a bit of disk swapping, but it also allows Enable to work without swallowing up gigantic portions of RAM as some competitors do.

Enable's three-layered menus are easy to follow. From the master menu, you choose your application by moving the cursor over inverse video cells. As a beginner, you probably would choose to enter commands from the top-line menu called up by pressing F10. After a little experience, you probably would graduate to the "expert" commands invoked with two or three keystrokes. Enable is written entirely in Assembler language, which no doubt contributes to its unusual speed and smooth operation.

Enable's word processing function is among the sleekest and most powerful I've seen. Up to eight separate files can be activated simultaneously through Enable's windowing function. This ability to work on multiple texts at the same time is not possible in integrated programs anchored around the spreadsheet function.

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word processor to do is available in Enable. Besides all customary functions, Enable has such luxury touches as the ability to search an entire file backward and forward from any position within the document. The IBM's special function keys are beautifully employed for such tasks as single keystroke deletion of an entire word regardless of which letter in the word the cursor is resting on. Copying spreadsheet or database information into your document requires nothing more than a few keystrokes. The maximum size of a document is limited only by available disk space.

Enable's spreadsheet is 255 rows by 255 columns, significantly smaller than competitors such as 1-2-3, but entirely adequate for most purposes. According to the publisher, a scheduled free upgrade for registered users will permit the configuration of Enable's 65,000 cells for maximum efficiency.

Enable's command structure is so similar to 1-2-3 that a user experienced with 1-2-3 should be able to design basic templates with nothing more than a little help from the top-line menu. True integration can be seen in the way Enable's spreadsheet copies fields from database records. Formatting cells to match the information being copied is automatic. You also can consolidate sections of separate spreadsheets through the combine command.

You enter the graphing function by selecting it from the top-line menu. A series of on-screen prompts makes the process simple. Printing graphics in Enable is probably easier than in most other integrated programs.

The opening menu in Enable's DBMS module stands as testimony to the program's strength and flexibility. Among its 23 choices are such functions as browse, verify, merge, graph and update. Defining a new database, an awkward and often complex procedure in some programs, is a snap in Enable. On-screen prompts make it necessary only to answer a series of questions about the type of data you want each field to hold and how large it should be. As in the spreadsheet mode, graphics are executed through a series of easy-to-follow prompts. Each record may contain up to 32 fields and a maximum of 2,000 characters. Another scheduled upgrade will expand the maximum to 254 fields.

The communications module rounds out Enable's package nicely. Such conveniences as automatic logon sequences and a choice of protocols make for a high degree of versatility and convenience. The documentation for communications is short (62 pages), but well organized and clearly written. Baud rates from 110 to 19,200 are supported.

Space limitations here make it difficult to do Enable justice. This is a program so powerful and wide ranging that a review such as this permits just a few quick brush strokes where a full-colored canvas would be more appropriate. While there are now several truly integrated programs on the market, I know of none I would prefer over Enable.

Circle 10 on the Reader Service card or GO EBB.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia, Pa. His CompuServe User ID number is 70007,420.

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Giraph and Zebra:
Providing Computer-Aided Graphics

IMRS Inc.
111 High Ridge Rd.
Stamford, CT 06905
203/359-9655

Computers: IBM PC, PC-XT or compatibles.
Operating Systems: PC-DOS 1.1 or later.
Media: One double-sided floppy disk required.
Required Peripherals: Graphics printer.
Other Requirements: Minimum of 192K RAM.
Optional Items: RGB or high resolution monochrome monitor and color adapter board. For Giraph only, a plotter of the following type: IBM XY/749, XY/750; Hewlett-Packard 7470A, 7475A, 7550A; Itoh CX4800.
System used for test: 320K IBM PC, DOS 2.0, one 360K drive, one 10 MB fixed disk, IBM monochrome monitor, Epson RX-80 printer.
List Prices: $295 for Giraph and $125 for Zebra.

Reviewed by Harry Green

Numbers are fascinating creatures, but they fail to inspire when they are presented in rows and columns of figures marching in dreary ranks across a page. Numbers take on vitality when they are ordered into graphs, bars, pie charts or scatter diagrams. The problem is, unless you have an intuitive numerical sense coupled with an artistic flair, the result may be less than pleasing, and sometimes misleading.

Giraph and Zebra are two computer-aided graphics programs that can develop and change a chart until it tells the story you want. Just as word processing allows a writer to change words without the tedium of retyping text, computer graphics enables us to tell a picture story without redrawing charts. Is a story better told with a pie or a bar chart? A graphics program allows you to change the display to see which looks best. What happens if the vertical scale is enlarged or compressed? Try it and see.

Aside from minor differences in the menus, Giraph and Zebra are so similar in operation that we will refer primarily to Giraph during this review. The main difference between the two is that Giraph supports several plotters, but Zebra supports only printers and graphics monitors. With a color monitor, graphs are displayed on the screen by either program; with a monochrome monitor, the chart is invisible until it is printed. One disappointing aspect of the programs is that they do not support monochrome graphics boards such as the Hercules Graphics Card, but they do an impressive job of displaying graphics on inexpensive printers such as the Epson RX-80.

Giraph is easy to learn and use. It is entirely menu-driven, with one set of menus for creating or revising graphs and another for formatting them. Graphs are created on the screen on a display that resembles a spreadsheet, except that empty cells are filled with 9s, which are replaced when figures are entered.

One drawback to Giraph is its lack of computational capabilities, which means that all calculations have to be made outside the program and the results entered into Giraph's tables. If you want to graph a polynomial, for example, you must calculate the values of the X and Y coordinates outside Giraph. The manual indicates that figures can be transferred from other programs that save data in Data Interchange Format (DIF), which would allow you to create files in Lotus 1-2-3 or VisiCalc and transport them to Giraph for graphing. Creating a DIF file from Lotus is not difficult, but I was unable to make Giraph read it from the instructions given in the manual.

Other than this problem, Giraph's documentation is well written and easy to use. When the cells are loaded, the graph is formatted by choosing menu options. The first set of commands selects the style: line, bar, pie or scatter charts. Each has its own variations. You can select six forms of cross-hatching and color combinations. Bar charts can be formatted with two or three dimensions. Multiple data can be displayed as an array of tandem bars or as stacked bars. Pie chart segments can be left intact or cut out. Line charts can be solid or dashed and even superimposed on bar charts. Grid lines can be drawn on either axis, shown as tic marks on the axis, or left out entirely. Vertical scales can be linear, log base 10, or log base e.

Graphs can easily be altered by returning to the menu and choosing a new set of options. It is possible to change color, shading, style or scale by recalling the appropriate menu and changing a few key strokes. The entire area under a curve or between two curves can be shaded if you wish. An interesting feature is the slide show option, which enables you to display up to 100 charts on the screen, and to vary the interval between slides from 0 to 100 seconds.

These programs are highly recommended for anyone who needs to draw charts and graphs on a computer. Giraph's primary attributes are its ease of use and flexibility. Anyone should be able to produce creditable graphs after taking the tutorial, which requires about an hour, and playing with some sample graphs furnished on a separate disk. Practically any line graph you would draw by hand can be drawn with Giraph or Zebra.

Harry Green is a free-lance writer from Portland, Ore. He writes about telecommunications, office automation and personal computer-related topics. His CompuServe User ID number is 70007,431.

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Sunnyvale, CA 94089
408/745-1655

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Operating Systems: PC-DOS & MS-DOS; C64; Apple DOS 3.3.
Media: At least one disk drive.
Required Peripherals: Any printer.
Other Requirements: IBM versions require 128K bytes RAM.
Optional Items: Color monitor and appropriate interface.
System used for test: 320K Heathkit 150PC computer with a monochrome monitor and two double-sided double-density drives running MS-DOS 2.13; Radio Shack DMP2100P printer; 128K Microfazer printer buffer.
List Price: $49.95 for each program.

Reviewed by Hardin Brothers

Everyone knows that $50 application programs for the IBM PC are too weak to be useful. Everyone, that is, except Creative Software. Their $50 programs

won't run your company, write your next novel or keep your coffee warm, but Creative Writer, Calc and Filer are excellent values, have enough power and capacity for many users, and even provide a small measure of integration.

Every program claims to be easy to learn; these three really are. Creative Writer and Filer both display comprehensive help screens any time you press the F1 key, while Creative Calc displays a list of all available functions. After reading through each program's short manual once, you should be able to use these programs without any trouble.

Creative Writer is a word processor that will satisfy almost everyone except professional writers. Its biggest limitation is its maximum capacity of 800 text lines (about 35 double-spaced pages). The program has all the commonly used word-processor functions: type-over and insert modes, individual and global search and replace, block move and copy, tab and margin controls that can be changed anywhere in a document, forced pagination, headers and footers, boldface and underline printing, recovery of deleted text, text centering, variable line spacing, page numbering and justified printing.

Creative Writer can include in a document information generated by Creative Filer or Creative Calc, and can create form letters based on information in a Creative Filer report. Although you can't see what your final document will look like while you are typing, Creative Writer has a preview mode that will print to the screen so you can check page breaks and margins.

Creative Writer's text handling abilities are excellent; its printing abilities are somewhat weaker. It does not support proportional spacing nor is it able to send special control codes to your printer. Therefore, you cannot utilize most of the advanced features of your printer with this program. Otherwise, it's an excellent general-purpose word processor.

The Creative Calc spreadsheet has a maximum capacity of 64 columns and 255 rows. It's very similar to VisiCalc, but has the added ability to use columns of different widths. However, it only has a limited range of math functions: sum, minimum, maximum, count, average, absolute value and integer value. This list is shorter than that found on most spreadsheets, but long enough to suit most users.

Like Creative Writer, Creative Calc is lacking in printer commands. It has no facility for defining the width of a printed line, nor for sending the necessary codes to change character sizes on a dot-matrix printer. Also, I found that Creative Calc's display of functions, though not its display of the spreadsheet itself, was difficult to read on a monochrome monitor. It's the only program in the series that doesn't permit you to select foreground and background colors or grey tones, and the only program not supplied in separate monochrome and color versions.

Creative Filer is a simple database manager, though like the other programs it has a surprising amount of power. It allows you to create data input forms up to 99 screen lines long. You have full control of how the blank form will look, including choice of colors for background, border and prompts. After the form is created, you use it to enter information that will be stored on disk. The number of records that Creative Filer can handle for any database is limited only by disk space; you must keep all records for any file on a single disk.

You can browse through the records in a file one at a time, or have Creative Filer search for specific information. The program is capable of searching for information in any field, using wild-card characters, finding exact matches and using greater-than, less-than and not-equal search criteria.

Creative Filer allows you to format printed reports in various ways. The reports can include derived fields and both totals and averages for all selected records. Reports can be displayed on the screen, sent to a printer or saved on disk for later inclusion in a Creative Writer document.

Unfortunately, each program in the series is supplied on a copy-protected diskette; you cannot backup any of the programs nor put them together on a single disk. In general, however, I was impressed with these programs. Each performed well and had surprising sophistication for the price.

Hardin Brothers is an associate editor of 80 Micro *and a frequent contributor to several other magazines. He is also an assistant forum administrator of CompuServe's Writers' and Editors' Special Interest Group (GO WESIG).*

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Monterey, CA 93940
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Computers: IBM PC, PC-XT, PC-AT and "true" compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires two double-sided double-density diskette drives or one diskette drive and a hard disk.
Required Peripherals: IBM color graphics adapter (or compatible adapter) and 80-column video display.
Other Requirements: Minimum 256K RAM.
Optional Items: Additional diskette drives, hard disks or electronic disk; additional memory; dot-matrix printer driven from LPT1 (recommended printers are Epson MX series with Graftrax, Epson FX series, HP Thinkjet NEC 8023A, IBM Graphics Printer and Toshiba 1350).
System used for test: 640K Compaq Deskpro (Model 2) with two 360K diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Compaq dual-mode amber and Amdek Color 700 monitors, Epson MX-80 printer with Graftrax Plus; running IBM PC-DOS 2.10 and Compaq MS-DOS 2.02.
List Price: $495

Reviewed by Ernest E. Mau

Surprise! There are some new things under the sun for word processing! Volkswriter Scientific is one. It's unlike anything else I've used or seen, with capabilities sorely needed by technical and scientific people handling equations, pictorial representations of chemical structures, and other complex compositions on a printed page.

Anyone who's used a conventional word processor to construct something like a sigma symbol knows the difficulties. By the time backspacing, overtyping and other manipulations are done, the text display is an unreadable mess. Making just one symbol print correctly can take hours of trials and blunders.

Some new word processors have built-in math and scientific characters that can be downloaded to printers and displayed on screen, but choices of character size, spacing and arrangement are limited and often don't look right on paper.

Now imagine a program with more than 160 special characters accessible from menus with a keystroke or two. Include Roman and Greek alphabets (in two sizes). Supply most commonly used mathematical symbols, such as sigma (sum), product, integral, circuital integral, union, intersection, implies, approximately equals, infinity and fractions plus common scientific and engineering symbols including Angstrom, degrees Kelvin, Planck's constant, reaction and bonding symbols. Also imagine building parentheses, brackets, braces, integration symbols and boxes spanning any desired number of vertical lines with just a few keystrokes. Provide 26 definable macros for storing often needed equations or symbols so they can be recreated at a keystroke.

Add some text handling capabilities and true proportional spacing of text characters. Display everything in absolute "as you see it" form on screen. Allow pixel-by-pixel control over horizontal spacing and half-line control over vertical spacing. Provide double subscripts and superscripts on the same line. Then use bit-mapped printing to assure that what's on the screen is exactly what's put on paper. Finally, give the user excellent on-screen tutorials covering the entire program step by step. Now you have some idea of what Volkswriter Scientific does.

The capabilities are fascinating. Building a benzene ring or hydrocarbon chain for illustration is easy. Constructing chemical, physical and mathematical equations, formerly almost impossible to do, now is simple. Even right-justified text is displayed exactly as it will print, and the ability to move things by pixels instead of whole character spaces gives total control from the keyboard and video screen.

However, Volkswriter Scientific is not a word processor in the usual sense. It can manipulate text through paragraph reforming, word wrapping, hyphenating, inserting, deleting, moving blocks, and so on, but it lacks important features of true word processors. Search or search-and-replace operations aren't provided. Page headings and footings are missing. Top and bottom margins are inflexibly set at one inch each. Text is entered, edited and stored page by page, not as a contiguous document. While margins may be changed, that must be done before typing text; going back to change indentation or margins afterward doesn't work. Underlining, boldfacing and italicizing are provided and shown on screen, but they're only convenient when first typing text. Later, it's necessary to overtype anything requiring a change of printing attributes.

Preparing or editing a document isn't particularly fast. Pixel-level control imposes numerous keystrokes to move the cursor, additional steps to replace one word with another if their proportionally spaced lengths aren't the same, and other inconveniences. At times, getting something exactly as wanted can be tedious work owing to the number of keystrokes needed for fine adjustments. Furthermore, bit-mapped printing of whole pages is detailed but slower than most text printing, especially when using the high-density instead of the high-speed printing option.

Volkswriter Scientific is best treated as a computer-aided design tool for printed pages — a composition system. It's likely to be most practical when used with ASCII files imported from some other word processor through a utility provided. Although some reformatting is necessary, particularly to restore blank lines lost when importing, the flexibility and convenience of true word processing would be available for text, while Volkswriter Scientific inserts special material needed to finish the document.

Of course, buying a high-performance word processor with Volkswriter Scientific could push the combined cost to $1,000 or so. Yet those who need such specialized tools aren't likely to quibble about costs. While Volkswriter Scientific isn't an ideal day-to-day word processor for non-technical materials, I've had projects for which I'd have cheerfully mortgaged my soul to obtain these particular capabilities.

Incidentally, the two distribution diskettes (system and tutorial) are copyable and are installable on hard disk. The manual says to store backups and run from originals, implying some sort of copy protection, but I saw no evidence of disruptive protection schemes and was able to use both hard disks and backup diskettes without jeopardizing original distribution diskettes in drives.

Circle 15 on the Reader Service card or GO EBB.

Computer Programming For The Compleat Idiot

By Donald McCunn
Design Enterprises of San Francisco, 1984
221 pages; $10.95 (softcover)

Reviewed by Annette Hinshaw

I expected to dislike this book, but I was pleasantly surprised. *Computer Programming for the Compleat Idiot* is easy to understand and an excellent choice for a beginning programmer. Even experienced programmers can learn a lot about building programs if they work through McCunn's exercises. The book is not exciting, but it is a solid, meat-and-potatoes approach to learning how to turn your computer into a practical tool.

McCunn offers "generic" programming for the Apple, Commodore, IBM and TRS-80 computers. Unlike most such books, he ventures into such things as file handling and disk operations, which vary from one machine to another. McCunn's clear explanations of the differences between the machines is one of the best features of the book. For example, when he discusses important keys on the keyboard, he explains the function of each key and then draws a diagram showing the placement of the keys on the different keyboard. Such features make this the first non-computer-specific programming book that I can recommend to beginners.

After a brief introduction to BASIC programming commands and mechanisms, McCunn spends about half the book walking the reader through the development of a payroll program. Most books for novices include only trivial exercises, but McCunn makes a major application easy for the novice by two methods. First he talks about what features are needed in such a program. He then breaks these into modular structures and talks about the programming mechanisms you need to get the results you want. Without a word of jargon, he demonstrates by example the superiority and ease of structured programming.

McCunn's choice of payroll for his example is pure genius. Even people who don't need this application can understand the ideas in the program. The reader who works through the book on his computer keyboard ends with a working program.

You won't be an experienced programmer after you work through *Computer Programming for the Compleat Idiot*, but you will have a solid foundation in the BASIC programming language and in how to construct a program in any language. McCunn's style is sensible, matter-of-fact and clear. Whether you are a rank beginner or an intermediate programmer, this book can move your skills forward significantly.

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Annette Hinshaw is a freelance technical writer and trainer in Tulsa, Oklahoma.

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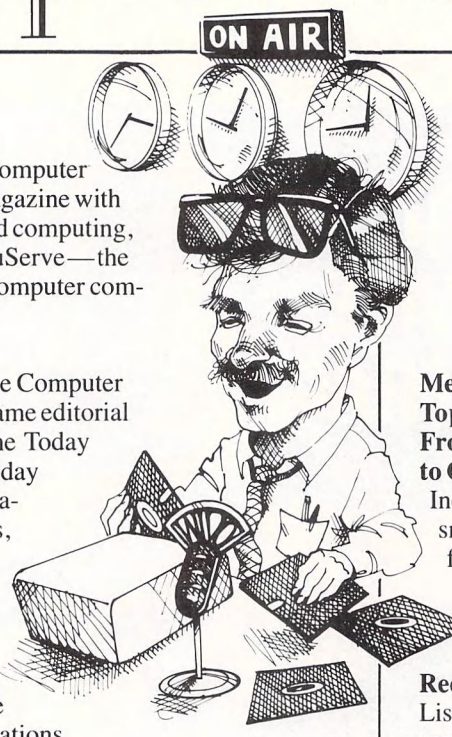
How To Access CompuServe By Radio



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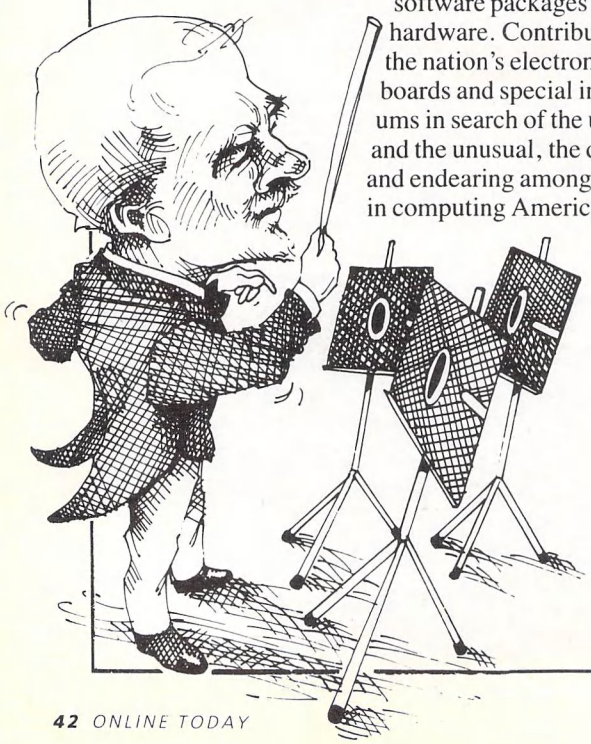
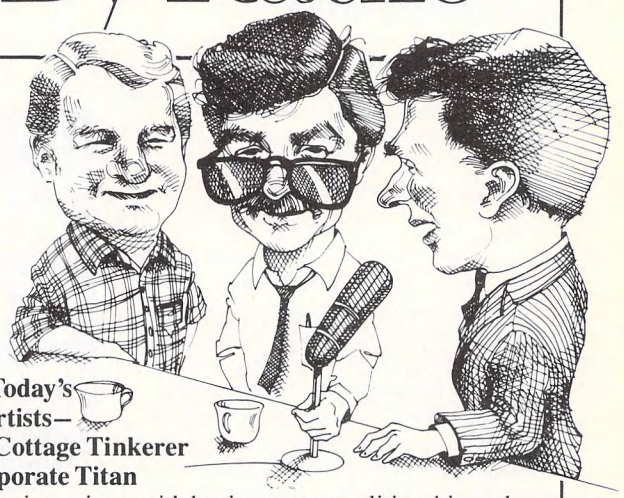
Floppy Disk Jockeys

Contributors to the Online Computer Connection include the same editorial staff that produces Online Today magazine and Online Today Electronic Edition and features reporters, reviewers, interviewers and columnists from throughout the computer industry press. They contribute to a fast-paced, five-minute news capsule heard daily on selected stations and edited with the computer user foremost in mind.

Inside Jazz™, Symphony™, Music Construction Set™ and More

Besides computer consumer reports and product and book reviews, The Online Computer Connection covers the activity of groups using specific software packages and computer hardware. Contributors monitor the nation's electronic bulletin boards and special interest forums in search of the unique and the unusual, the daring and endearing among events in computing America.





Meet Today's Top Artists— From Cottage Tinkerer to Corporate Titan

Incisive interviews with business personalities, big and small, bring authority to our analyses and vision to our forecasts. Whether discussing the creation of software or the retention of market share, Online Computer Connection guests illuminate topics shaping the microcomputer industry.

Request Lines are Open for CompuServe Subscribers

Listeners who also subscribe to the CompuServe Information Service can visit an online special interest group organized to support the show. Join this interactive forum to discuss features from the show with other listeners, retrieve transcripts, or make suggestions about future stories.

Turn on the Online Computer Connection for a timely look not just at the movers and the shakers, but the moved and the shaken within our emerging computer society. And tune in the show's CompuServe forum with a GO OCC command at any ! prompt.

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Online COMPUTER CONNECTION

Where to Tune in Your Area
More stations plug into the Online Computer Connection every week. Look for the most current list in CompuServe's OCC Forum, or if you are not a subscriber, call CompuServe to find out the nearest station carrying the program. Watch local broadcast listings for news about the show. If the show does not air in your area, call your local station and have them contact Jameson Broadcast (614) 476-4424 for more information.

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The Online Computer Connection is produced by Jameson Broadcast with offices in Washington, D.C. and Columbus, Ohio.

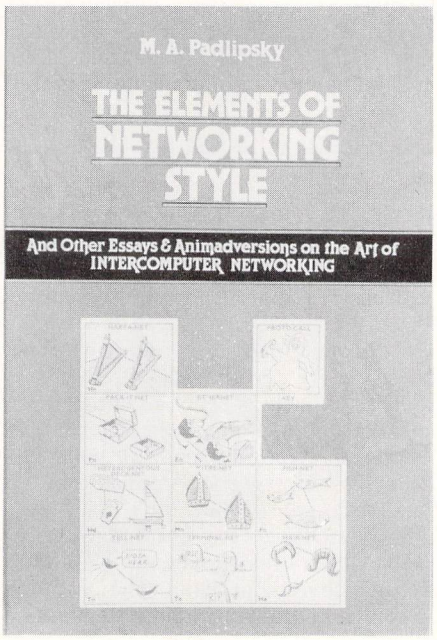
BOOK REVIEW

The Elements of Networking Style

By M. A. Padlipsky
Prentice-Hall, 1985
236 pages; $18.95 (softcover), $24.95 (hardcover)

Reviewed by James Moran

The subtitle of this book should have tipped me off that this was not going to be your typical, run-of-the-mill "techy" book. After all, right smack in the middle of the front cover where publishers love to put those catchy subtitles it said: *And Other Essays & Animadversions on the Art of Intercomputer Networking.* And if the subtitle was not enough to get my attention, the dedication on the first page certainly was: "In empathic memory of Emperor Julian — and, of course, Voltaire."


M. A. Padlipsky
THE ELEMENTS OF NETWORKING STYLE
And Other Essays & Animadversions on the Art of INTERCOMPUTER NETWORKING

In what should have been titled *Zen and the Elements of Networking Style*, M.A. Padlipsky has taken a subject that is difficult for most people to understand and made it impossible for most people to understand. What is that subject? An excellent question, which unfortunately will never be answered for most readers, since they will probably die of terminal "cuteness" before they reach the end of the first chapter. This book is crammed with "littech" (literate technicalese), which is apparently meant to showcase the wit and intellect of the author, with barely a nod in the direction of the poor reader.

The book is actually a compilation of previously delivered technical papers, wrapped with a coating of introductions, abstracts and afterthoughts. The basic premise of the author seems to be that the ARPANET Reference Model, although bad-mouthed by many — if not most — of the experts on the interconnection of computers, is really wonderful; and that the ISO's Open System Interconnection Reference Model, although applauded by most — if not all — of those same experts, isn't as great as it's cracked up to be.

Does anyone really care about which model is really the best? Certainly those who deal with large computer networks in their everyday work may find this book interesting and useful, but most personal computer users will find themselves in water that is well above their heads. This is not a book for the technically faint-hearted.

James Moran is the editor of Compu-Syn, *a syndicated news service that specializes in computers and robotics.*

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High-Tech Career Strategies for Women

By Joan Rachel Goldberg
Collier Books (Macmillan), 1984
290 Pages; $9.95 (softcover)

Reviewed by Lindsy Van Gelder

Don't be put off by the fact that the author's only other published book is called *You CAN Afford A Beautiful Wedding*. This "guide to finding the right job and getting ahead in today's fastest-growing industries" isn't the book to give someone who already knows the way around a computer terminal — it assumes you're starting from scratch and probably technophobic — but it's a well researched and brightly written overview of the computer business and the particular challenges faced by women.

Actually, most of the book contains advice that's relevant to both genders, from the descriptions of the different types of jobs that are available today to the chapter on "getting your foot in the door." But Goldberg also tosses in special tips for women only.

The middle-aged homemaker who's trying to get a high-tech entry-level job after years of staying home with her children is warned to be prepared to combat the stereotypes that "you'll be grateful for any job" and that "you won't be able to work overtime when necessary," and urged possibly to capitalize on employers' stereotypes about maternal maturity and stability.

There are also profiles of numerous women who've already made it (from Grace Hopper, the inventor of COBOL, to Lore Harp of Vector Graphics), concrete legal information on how to combat sex discrimination, and even a pep talk on all the ways in which women have been socialized to develop the kinds of skills (such as good communication) that high-tech employers need.

The book also includes a series of personality quizzes guaranteed to quicken the pulse of anyone who's a sucker for all those "which perfume type are YOU?"-type articles in women's magazines. The quiz that rates your potential as an entrepreneur is straightforward enough, but, unfortunately, the rest are pretty disappointing. The one that purports to measure the degree of your technophobia is downright silly. (Can we really believe that anyone who needs to be asked if she'd rather program a computer or touch a dead rat would be reading this book?)

Another set of tests (designed to figure out whether you should be applying for work as a technical writer, systems analyst, salesperson, computer service technician, customer support representative, teacher/trainer, consultant, engineer, financial analyst, recruiter, graphic artist, database manager or director of management information systems) is hopelessly complicated.

Still, there's lots of information here, and this book would especially be a good addition to any high school guidance counselor's shelf.

Lindsy Van Gelder has written about IBM PCs and other computers for PC, PC World, PCjr *and other publications. Her CompuServe User ID number is 73125,470.*

C-64 Telecommunications

By Jonathon Erickson
Osborne/McGraw-Hill, 1985
180 pages; $14.95 (softcover)

Reviewed by Don Lloyd

I have yet to be disappointed by an Osborne/McGraw-Hill book. This overview of telecommuncations is so well organized and so thorough in its coverage of each topic that it will prove useful even if you don't use a Commodore 64 computer to go exploring the wires.

Several chapters are C-64 specific: good summaries of the various modems and terminal programs available, handling disk files and the like. The emphasis, though, is what's available online and how to make use of it, something you can do with practically any machine.

Many telecommunications books concentrate on how to obtain public domain software. While "free" computer programs are undoubtedly an attraction, and Erickson does not overlook them, there is something much more valuable out there. It is so omnipresent that, like the air we breathe, it is often not recognized as valuable in and of itself: communication.

Erickson's approach to the subject keeps that in mind. While all the major networks and many lesser-known online databases are covered, they are not treated so much as separate entities as variations on a common theme. The chapter on electronic mail, for instance, discusses CompuServes's Email (now EasyPlex), SourceMail, MCI Mail, the U.S. Post Office's E-COM and Western Union's EasyLink. Email and MCI Mail are then covered in detail. The chapter on selling and buying stocks similarly places the act of investing online in the forefront and the particular systems by which it's done are handled as subtopics.

Also covered are at-home banking and shopping, and accessing electronic libraries, education and recreation. There is an appendix on specialized services that I found to be of great interest; agriculture, nuclear energy, transportation and medicine are a few of the dedicated networks summarized.

While all this may sound very professional and perhaps a bit dry, Erickson likes to have fun, too. There are sections on playing games; on hooking up two C-64s to each other; and, of course, on the vast world of BBSes (Bulletin Board Systems), generally non-profit message and database systems that are set up for the sole purpose of communicating electronically.

Don Lloyd is an electronic music composer, a freelance writer and programmer in the San Francisco Bay Area. He may be contacted on CompuServe via User ID number 76703,433, or on the Writers' & Editors' special interest group (PCS-117).

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HYBRID TERMINAL is a low cost terminal program for the Commodore 64. Features 38K of memory and fast data transfer to disk/tape/printer. Allows writing messages while offline. Disk/tape $16.95 plus $2 shipping. EasyPlex for specs.

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Modem Protection

The Wire Tree Plus, a six-outlet surge/spike filter from Networx, now features special modem protection. The unit acts within one nanosecond (one-billionth of a second) to protect computer circuits and telephone data lines from sudden voltage surges and spikes.

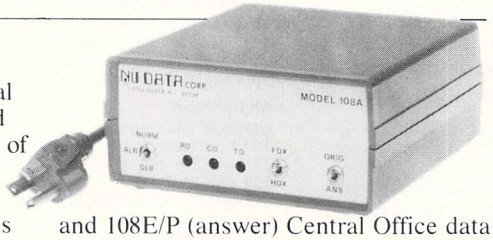
The Wire Tree Plus has two protected modular telephone jacks for modem hookup and six outlets into which computers and peripherals can be plugged. Five of the six outlets can be controlled with an illuminated switch; the sixth is continuously on for use with devices such as security alarms.

The unit also protects modems and computers from false signals and computer malfunctions that can be caused by radio frequency interference.

The Wire Tree Plus sells for $99.95. For information, contact Networx, 203 Harrison Pl., Brooklyn, NY 11237; 718/821-7555.

Circle 19 on the Reader Service card or GO EBB.

Nu Data Modem



Nu Data Corp. has introduced serial binary transmission modems designed for applications requiring the function of the Western Electric Co. Model 108.

The Model 108 series features full-duplex, frequency shift-keyed modems that operates at speeds up to 300 baud over two-wire, point-to-point private line voice-grade facilities.

Available as a universal station data set, the Model 108A is an originate/answer stand-alone unit for terminal applications.

In addition, Model 108D/P (originate) and 108E/P (answer) Central Office data sets are plug-to-plug compatible with the Bell System 96A1 Repeater or 144-type coupling units and are direct replacement upgrade units.

For information, contact Nu Data Corp., P.O. Box 125, Little Silver, NJ 07739; 201/842-5757.

Circle 20 on the Reader Service card or GO EBB.

Communications Board for PC

Communique Corp. has introduced a new dual-port, multifunction communication board for the IBM PC and compatible computers.

Called the CQ-MCB2, the board offers asynchronous, synchronous, SDLC or HDLC communications. Its design provides for simultaneous use of either port in any combination of the above protocols.

Features include independent program selectable baud rates, switchable internal or external clocks for each port and jumper selectable for modem or terminal.

The unit is priced at $275, which includes a 3-foot ribbon cable for each port.

For information, contact Communique Corp., 5380 Capital Circle N.W., Tallahassee, FL 32303; 904/562-4255.

Circle 21 on the Reader Service card or GO EBB.

Data PBXs

Quasitronics Inc. has introduced a new family of products called The Pipe, which are true intelligent data PBXs that can be used to interconnect up to 16 different computer components having RS-232, RS-422 or Centronics interfaces.

The Pipe's internal software allows control of all network links and communications functions. Asynchronous communications are possible from any port to any port, any port to all ports, any speed to any speed, any protocol to any protocol. It allows communications between dissimilar systems operating at different baud rates, word structures and flow control.

The system has 54K bytes of dynamically allocated RAM that are used automatically as needed for speed conversion between ports, printer buffering, bulletin board memory and message storing.

For information, contact Quasitronics Inc., 211 Vandale Dr., Houston, PA 15342; 800/245-4192 or 412/745-2663.

Circle 22 on the Reader Service card or GO EBB.

Communications Software

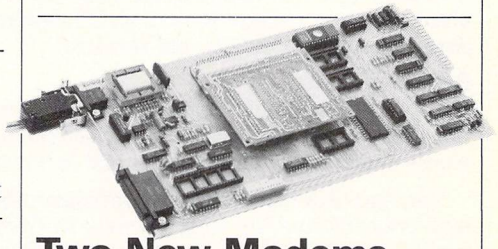
PFS:Access, communications software for selected MS-DOS computers from Software Publishing Corp., has been enhanced to offer more communicating power.

New features include the ability to send information to another personal computer or mainframe, support of XMODEM protocol and the ability to automatically execute all dial-up and sign-on procedures for various online services, including CompuServe.

In addition, PFS:Access may be used to set up a personal computer so that the files in it are accessible to other personal computer users.

The enhanced version of PFS:Access, which sells for $140, is integrated with other members of the PFS software family. Current owners may update to the new version by sending their program disk and $35 (plus sales tax for California residents) to Software Publishing, 1901 Landings Dr., Mountain View, CA 94043; 415/962-8910.

Circle 23 on the Reader Service card or GO EBB.



Two New Modems

Western Datacom has introduced two new modems — the 212 Autodial and the 424 Autodial.

The 212 Autodial features Hayes "AT" command compatibility, memory for a telephone number up to 32 digits and pulse or tone dialing with automatic tone detection. The modem sells for $925.

The 424 Autodial 1400/1200/300 bps full-duplex triple modem and auto-dialer can be installed within any VA series chassis for central-site operation.

The unit offers instant plug-in capability with other Western DataCom microprocessor boards. Add-on functions can include asynchronous protocol translation, remote-activated diagnostics, three-channel asynchronous multiplexing and a dial-up computer security system.

For information, contact Western DataCom, 5083 Market St., Youngstown, OH 44512; 216/788-6583.

Circle 24 on the Reader Service card or GO EBB.

Modem and Disk

An optional "multi-unit," which combines a direct-connect modem and a 64K RAM disk in a single snap-in peripheral, is now available for the Epson Geneva portable computer from Epson America Inc.

Shaped in a wedge, the multi-unit fits on the bottom of the Geneva, providing communications capabilities and additional memory without taking up more space.

The direct-connect modem is capable of full-duplex communication over telephone lines at a bit rate up to 300 baud and is Bell 103 compatible. The quality of communication can be monitored with the Geneva's built-in speaker. A FCC-approved telephone interface features automatic dialing and answering for both pulse and touch tone systems.

The multi-unit retails for $360. For information, contact Epson America Inc., 2780 Lomita Blvd., Torrance, CA 90505; 213/539-9140.

Circle 25 on the Reader Service card or GO EBB.

Time Management

Judy is a time management software package from New Functions that is billed as "a personal nag."

The program keeps track of everything the user ought to be doing through two interlocked but independent modules, which are a full-screen, full-featured interactive calendar and a background companion that runs concurrently with any other MS-DOS software.

Judy requires just 8K of memory and an IBM PC. Notes flash without disturbing onscreen software, and wildcard constructs establish regular appointments.

The program retails for $29.95. For information, contact New Functions, P.O. Box BB, Staten Island, NY 10302; 718/273-2668.

Circle 26 on the Reader Service card or GO EBB.

Report Writer

Quickreport from Fox & Geller is a report writer for dBase-III and dBase-II.

The report writer can produce simple or complex reports for dBase-III. It requires no programming, combining up to six dBase-III databases into one report.

Quickreport retails for $295 and runs on IBM and compatible personal computers. For information, contact Fox & Geller Inc., 604 Market St., Elmwood Park, NJ 07407; 201/794-8883.

Circle 27 on the Reader Service card or GO EBB.

9 Tasks at Once

Up to nine different computing tasks — word processing, database sort, accounting calculations, printing, modem monitoring and more — can now be performed at the same time on IBM personal computers using Tascmaster from Profit Systems Inc.

The software works by dividing the system memory into independent sections and using these chunks of memory to run independent tasks.

For instance, if the user is working in WordStar and a calculation is needed for a report, he can have Lotus 1-2-3 work out the calculation in another task while continuing to write and without having to load or unload any of the programs.

Two multifunction boards — Addram Plus and Addram Elite — accompany the Tascmaster software.

Retail prices range from $475 to $1,175. For information, contact Profit Systems Inc., 4655 Old Ironsides Dr., Suite 400, Santa Clara, CA 95050; 408/748-9551.

Circle 28 on the Reader Service card or GO EBB.

Softmaker II

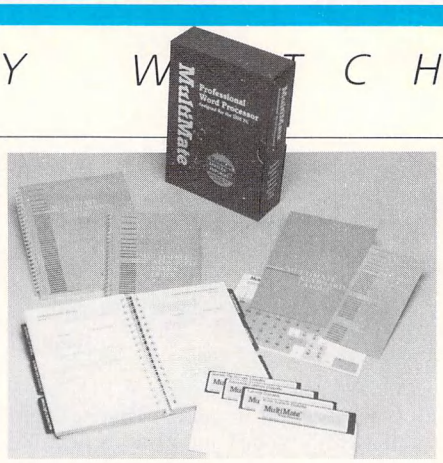
Rio Grande Software has introduced Softmaker II (Version 2.00) for the Apple Macintosh computer.

The program, which includes report and program generators and a sort/merge program, makes use of the Macintosh environment with windows, pull-down menus, buttons and mouse.

Retailing for $199, the package provides online help, allows up to 50 screens and utilizes password protection on data and structural files.

For information, contact Rio Grande Software, 221 Nolana, McAllen, TX 78504; 800/527-1121, extension 2785, nationwide, or 800/292-1031, extension 2785, in Texas.

Circle 29 on the Reader Service card or GO EBB.



MultiMate Integrates

The latest version of the MultiMate Professional Word Processor (Version 3.30) features an enhanced merge utility and a new, modular file conversion utility that includes IBM DCA format and a telecommunications-compatible format.

MultiMate 3.30, designed for the IBM PC and compatibles, also interfaces with more than 275 printers. The software is hard-disk compatible for use with the IBM PC, PC-XT or PC-AT.

The new 1985 version of the File Conversion Utility is modular, enabling users to add a variety of conversion formats as they are released by MultiMate International. The enhanced merge utility allows users to pull names, address and other information from standard ASCII data files created by a wide range of database or data-management software.

For information, contact MultiMate International Corp., 52 Oakland Ave. N., East Hartford, CT 06108; 203/522-2116.

Circle 30 on the Reader Service card or GO EBB.

External Modem

IntelliModem EXT from Bizcomp Corp., an external modem for all personal computers, is a stand-alone 300/1200-baud communications system for use with any serial RS-232-equipped computer or terminal.

The voice insert capability allows use of an ordinary phone to add integrated voice to a personal computer workstation. The user may simply talk and listen, or send and receive data without having to hang up and redial.

IntelliModem EXT is Hayes compatible. Advanced call progress detection lets the modem electronically sense telephone system signals such as busy, dial tone, remote ringing and voice and display these conditions on the computer screen.

For information, contact Bizcomp Corp., 532 Mercury Dr., Sunnyvale, CA 94086-4018; 408/733-7800.

Circle 31 on the Reader Service card or GO EBB.

Wide Carriage Dots

Legend Peripheral Products has introduced the Legend 1385, a wide-carriage dot-matrix printer that retails for $449.

The unit uses the new square dot technology and has an RTS of 163 characters per second. It accepts paper from 4 inches to 15 inches and prints a full 136 columns of standard output and 233 columns of compressed print. Adjustable sprocket and friction feed offer the option of continuous form paper or single sheet printing.

Downloadable character sets allow users to design their own fonts or select from more than 40 fonts furnished with the printer.

For information, contact Legend Peripheral Products, 6041 Variel Ave., Woodland Hills, CA 91367; 800/4-LEGEND (nationwide) or 818/704-9100 (in California).

Circle 32 on the Reader Service card or GO EBB.

Disk Marker

Two new types of markers designed for use on computer software have been introduced by Sanford Corp.

One of the new markers is called Diskribe and can be used directly on computer software disk sleeves for safe identification and reference. The ink is quick-drying and permanent. The markers are available in silver and gold.

The other marker is called the Label pen and meets the need for a writing instrument that really "takes" on slick-finish and other hard-to-mark labels used on disks, diskettes and VCR cassettes. Features include an extra-fine point and high-intensity permanent ink that dries quickly and resists smearing. Black, red and blue are available.

For information, contact Sanford Corp., 2740 Washington Blvd., Bellwood, IL 60104; 312/547-6650.

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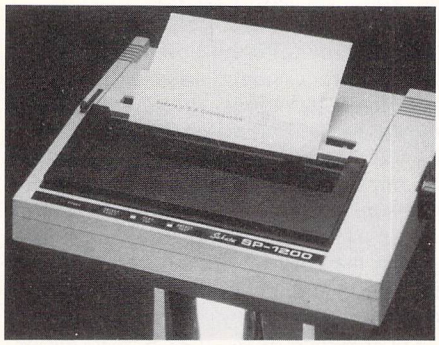

Sakata Dot Matrix

Sakata has introduced the SP-1200, a standard 80-column serial dot matrix printer with a printing speed of 120 cps.

With the capacity for emphasized and double-print modes, plus superscript/subscript modes, SP-1200 provides versatility of operation with both single and double resolution graphics. Additional features include logic-seeking printing or incremental printing with high-response stepping motor.

The SP-1200 can be used with fanfold, roll or cut sheet paper by using the adjustable sprocket pinfeed and friction feed. Included is an eight-language international character font with French, Spanish, Italian, Swedish, German, Danish and English.

For information, contact Sakata U.S.A. Corp., 651 Bonnie Lane, Elk Grove Village, IL 60007; 312/593-3211.

Circle 34 on the Reader Service card or GO EBB.

Help System

Helpdos, the help system for PC-DOS and MS-DOS, is a menu-driven software program from Help Technologies.

The program features on-screen reference information and examples for DOS commands, special keyboard keys and batch subcommands. A technical dictionary explains the often confusing terms that are encountered when using DOS and personal computers.

A "hints" feature helps the user find the right DOS facility for a specific task. New help files and menus may be added to the program, allowing it to serve as a general help tool.

Helpdos is available for the IBM PC, PC-XT, PC-AT, PCjr and most compatibles and sells for $49.95. For information, contact Help Technologies, P.O. Box 50834, Palo Alto, CA 94303; 415/856-3431.

Circle 35 on the Reader Service card or GO EBB.

Cutting the Glare

Hunt Manufacturing Co. has introduced a new line of CRT Anti-Glare Filters. Five different sizes fit more than 90 percent of all CRT units in use. Each filter sells for $29.95.

The do-it-yourself mounting kit uses velcro adhesive pads. No tools are required and a filter cleaning cloth is included with each package.

For information, contact Hunt Manufacturing Co., 230 S. Broad St., Philadelphia, PA 19102; 215/732-7700.

Circle 36 on the Reader Service card or GO EBB.

PC-Desk Freeware

PC-Desk from Software Studios Inc. features a calendar/reminder, calculator, address file, automatic phone dialer, word processor, repetitive letter writer, label and envelope printing and telephone directory.

It is billed as "freeware," since the program can be copied and distributed freely. A $25 registration fee entitles registered owners to free updates and telephone support.

PC-Desk is designed for the IBM PC and all compatibles with 64K memory, a disk drive, printer and DOS 2.0 or higher.

Using PC-Desk, the user can maintain a comprehensive mailing list database with two search fields and four sort fields. Each record can be annotated with private remarks. Automatic letters can be printed, individually or in groups.

The program merges the name, address, date and salutation with the text of the letter and also merges up to four variables within the body of the letter. For systems equipped with a modem, PC-Desk can automatically dial any number in the database.

For information, contact Software Studios Inc., 8516 Sugarbush Ct., Annandale, VA 22003; 703/978-2339.

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For free information on product or services in this issue of Online Today, fill in your name, address and zip code and answer questions A through E. Then, circle the number that corresponds to the number of the ad or article in which you are interested.

CompuServe Consumer Information Service subscribers can request information electronically by entering GO EBB at any prompt.

(Please print or type)

Name _____

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Business Address _____

City _____

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A. Occupation
1. ☐ Executive/managerial
2. ☐ Computer professional/technician
3. ☐ Other professional
4. ☐ Teacher/instructor
5. ☐ Sales
6. ☐ Skilled labor
7. ☐ Student
8. ☐ Other (specify) _____

B. Interest in computer is for:
1. ☐ Business 2. ☐ Personal 3. ☐ Both

C. Brand of personal computer interested in:
1. ☐ IBM
2. ☐ DEC
3. ☐ Atari
4. ☐ Apple
5. ☐ Radio Shack
6. ☐ Hewlett-Packard
7. ☐ Commodore
8. ☐ Other (Specify) _____

D. I am interested in the following product:
1. ☐ Business Information Services
2. ☐ Consumer Information Services
3. ☐ Electronic Mail/conferencing
4. ☐ Communications Software
5. ☐ Modems
6. ☐ Word processors
7. ☐ Database management software
8. ☐ Integrated Software
9. ☐ Local Area Networks
10. ☐ Computer Books/Publications
11. ☐ Peripherals (specify) _____
12. ☐ Other (specify) _____

E. I plan to spend the following dollar amount on computer products within the next year:
1. ☐ $1-$999
2. ☐ $1,000-$4,999
3. ☐ $5,000-$9,999
4. ☐ $10,000-$19,999
5. ☐ $20,000-$49,999
6. ☐ $50,000-$99,999
7. ☐ $100,000-or more

Circle inquiry number from this issue only.

1	21	41	61	81
2	22	42	62	82
3	23	43	63	83
4	24	44	64	84
5	25	45	65	85
6	26	46	66	86
7	27	47	67	87
8	28	48	68	88
9	29	49	69	89
10	30	50	70	90
11	31	51	71	91
12	32	52	72	92
13	33	53	73	93
14	34	54	74	94
15	35	55	75	95
16	36	56	76	96
17	37	57	77	97
18	38	58	78	98
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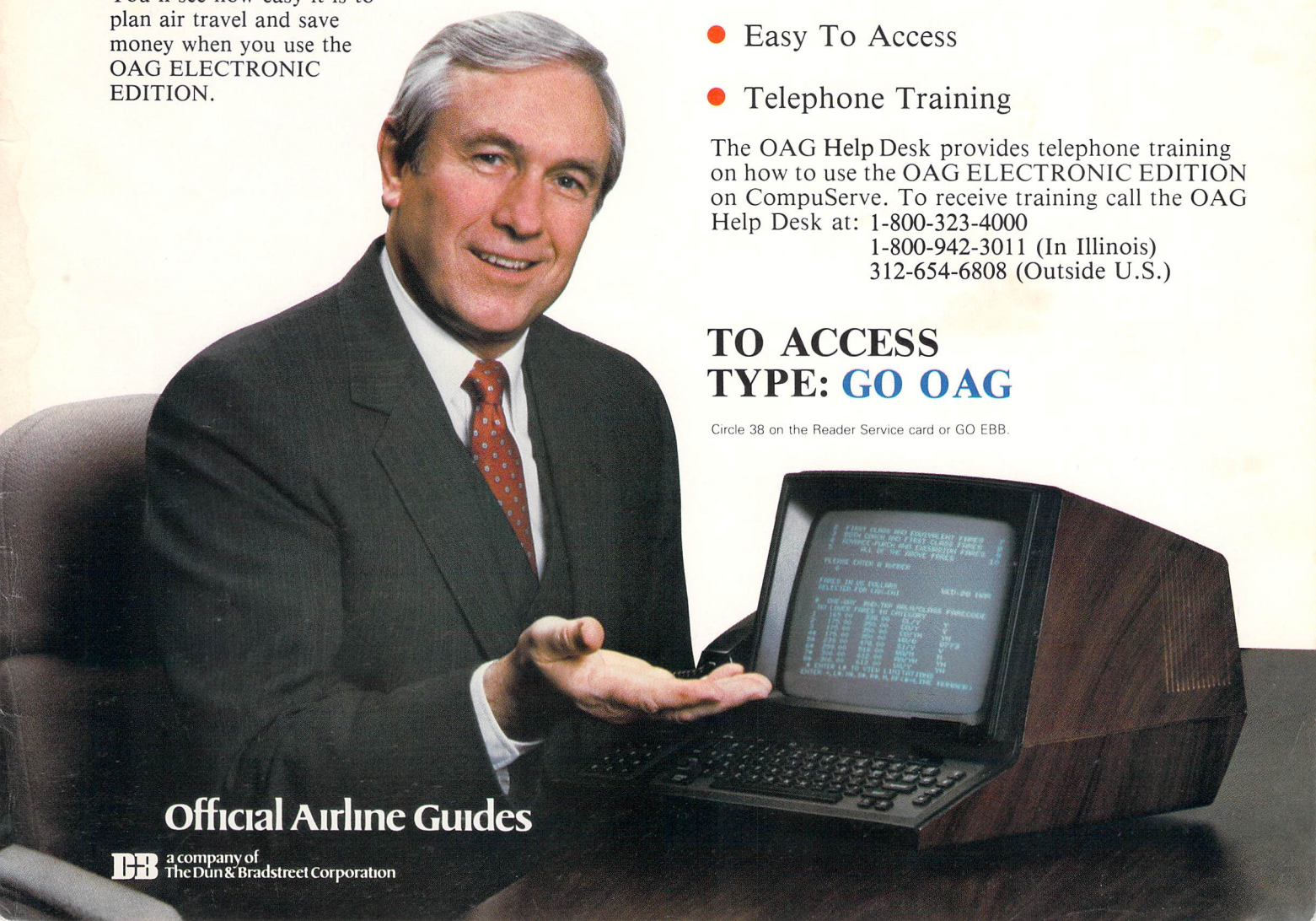

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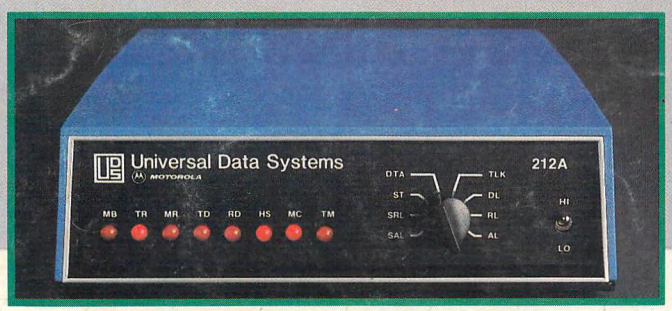
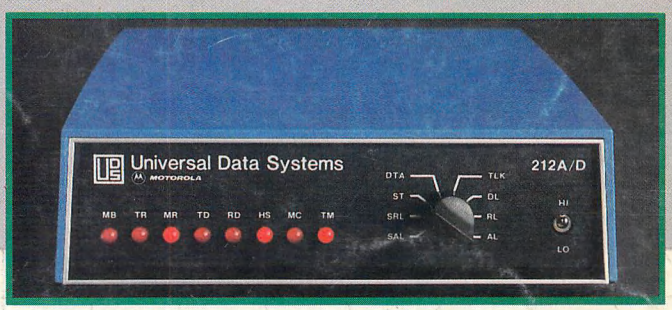
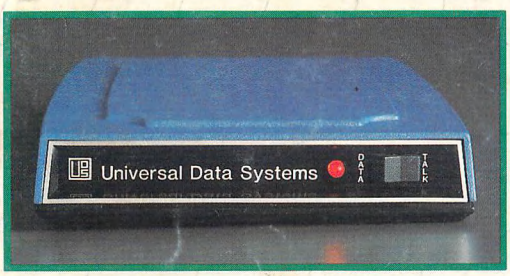
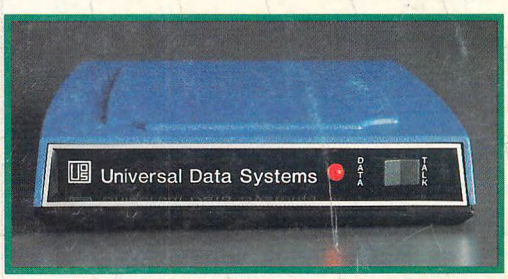
UDS UPDATE:

Bigger performance, smaller size for the 212 modem family









While the members of the UDS 300/1200 bps modem family have grown progressively smaller, the family itself has grown larger. The family now consists of:

• **The microprocessor-powered 212A.** It's a fully optioned, automatic-answer modem, but it's now packaged in the new 7″ × 9½″ × 2¼″ UDS "minibox." The full range of test capabilities is included.

• **The microprocessor-powered 212A/D.** Also packaged in the new minibox, its auto-dial storage capacity has been extended to 10 numbers. Screen-prompted auto log-on procedures can now be executed by the modem.

• **The line-powered 212 LPs.** These ultra-compact units are also 300/1200 bps. They draw their operating energy directly from the telephone circuit and need no external power source. The 212 LP is an originate/answer unit which requires manual answering; as an alternative, you may specify the 212A LP, a line-powered unit with auto-answer capability.

Check out the expanded family of UDS 212s — for technical details and attractive quantity discounts, contact Universal Data Systems, 5000 Bradford Drive, Huntsville, AL 35805. Telephone 205/837-8100; Telex 752602 UDS HTV.

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212A	$495	212 LP	$295
212A/D	$545	212A LP	$345

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